ACS RECOGNITION OF PRIOR LEARNING (RPL) FORM - 2017

This document is required to be completed for all **Recognition of Prior Learning (RPL)** applications and uploaded as a PDF to the application form.

IMPORTANT NOTICE:

Misleading and false information is viewed as a major breach of ethical behaviour and will seriously jeopardise your migration prospects.

It is your responsibility to indicate when you have drawn on the work of others. Other people's original ideas and methods should be clearly distinguished, and other people's words, illustrations and diagrams should be clearly indicated regardless of whether they are copied exactly, paraphrased, or adapted.

Failure to acknowledge your source by clear citation and referencing constitutes plagiarism. All plagiarism will be assessed as not suitable and reported to the Department of Immigration and Border Protection.

The ACS reserves the right to use software applications to screen your submitted work for matches either to published sources or to other submitted applications. In some cases, you may be asked to submit project reports and other written work submitted with the application for screening by plagiarism detection services.

If at any stage in the assessment process plagiarism is detected, the information may be provided to other Australian Government agencies. The assessment will be terminated and the outcome recorded as unsuitable. A refund of the application fee cannot be provided for cases assessed as containing false information or plagiarism.

Please complete the following 2 sections:

1. **The Key Areas of Knowledge – Section 1**
2. **The Project Report Forms – Section 2**

RPL applications are for those applicants who do **not** hold a recognised tertiary ICT qualification and who have a minimum of 6 years of closely related experience.

This document provides the opportunity for applicants to demonstrate the knowledge learnt throughout their professional experience.

Applicant Name	
Applicant Email Address	
Applicant Date of Birth	DD/MM/YY

SECTION 1 – KEY AREAS OF KNOWLEDGE

Section 1 is based and will be assessed on the following document. Please ensure you read and understand - The ACS Core Body of Knowledge for ICT Professionals (CBOK).

You must clearly explain how your experience and qualifications meet the selected Areas of Knowledge and specifically how and where you acquired the knowledge.

You are required to select one topic from the Essential Core ICT Knowledge (Topic 1 or Topic 2) and one topic from the General ICT Knowledge (Topic 3, Topic 4 or Topic 5).

Please ensure you address at least 2 subtopics from each of the topics chosen.

The ICT Key Areas of Knowledge:

Essential Core ICT Knowledge

Topic 1. ICT Professional Knowledge
Sub Topics are -
a. Ethics
b. Professional Expectations
c. Teamwork Concepts and Issues
d. Communication
e. Societal Issues

Topic 2. ICT Problem Solving
Sub Topics are -
a. Modelling Methods
b. Processes to understand problems
c. Methods and tools for handling abstraction

General ICT Knowledge

Topic 3. Technology Resources
Sub Topics are -
a. Hardware and Software Fundamentals
b. Data and Information Management
c. Data Communications and Networking

Topic 4. Technology Building
Sub Topics are -
a. Human Factors
b. Programming
c. Information Systems Development and Acquisition

Topic 5. ICT Management
Sub Topics are -
a. IT Governance and Organisational Issues
b. IT Project Management
c. ICT Service Management
d. Security Management

Important:

- **Identify the Area of Knowledge topic that you have chosen to explain by entering the name of the Area of Knowledge topic in the box.**
- **Explain, in the expandable typing area, how you have acquired the knowledge and illustrate the depth of that knowledge.**
- **You should NOT address all sub topics included in the Area of Knowledge in your explanation. Address at least TWO of the sub topics. Enter the sub topic name(s) in the box.**
- **Be clear and concise in your explanation.**
- **Limit each explanation to no more than one to one and a half pages.**

In the following expandable typing areas, explain **how you have acquired your in-depth knowledge** in these topic areas through your professional experience.

Essential Core ICT Area of Knowledge:

ICT Professional Knowledge
Subtopics:

- ⇨ Ethics
- ⇨ Communication

How have you acquired this knowledge in your working environment? Illustrate your depth of knowledge.

ETHICS:

I have learned and experienced professional ethics right from the start of my professional career as ICT networking professional. On the basis of my learned knowledge, I can define ethics as all the moral concepts and traits that highlight how an individual or a set of people is going to behave in the society as well as in the professional workplace. Individuals should not only exhibit ethical manner in computer field solely but also practice ethical behavior in almost every field of life. As far as the concept of Ethics is concerned I would say that every individual has his own way or the idea of understanding the ethics or ethical values at work environment. I would like to elaborate on an example of a lawyer should in no way share any secret information regarding his clients and casework with anyone else or anyone not related that particular case. It is absolutely unethical to him if he leaks out any part of information without the consent of his client.

Since the use of computer and information technology is growing at a rapid rate in the present world, the ethical concerns regarding its use are also increasing. Few important issues which are more common nowadays are intellectual and digital property rights usage and the most common is the use of pirated or copied versions of applications and software.

Intellectual Ethics:

Large amounts of data relative to almost every aspect of research and field are available on the internet being published by different authors and developers. This data can be accessed easily and publishing that data on your behalf without getting the approval of the author is considered highly unethical practice. Copying the software and applications being purchased by the employer and using them for personal intentions without the consent of the employer is considered unethical behavior. This issue of using pirated and unlicensed applications by different users is getting more and more attention. Also copying information from someone's personal computer and showing it as your own effort is unethical. If the data has to be used necessarily then it should be used after the consent of the developer or author and there should be proper recognition of his work.

Hacking:

Getting access to someone's system and using/copying data without the consent of the owner is unethical and serious offense. Through this technique, the competitor can disclose the features being introduced in the new product or service which is going to be launched by a business .the future sales and the performance of that company can be put at stake by adopting such unethical behavior. Moreover, the staff can reveal the core competencies and the trade secrets of the firm to the competitors through unauthorized access to secret files and could jeopardize the existence of the firm.

I always have tried not only following ethical and moral behavior only on my job but also I was able to understand these basic things in my early days and my family also emphasizes on adopting ethical values. As per my learned knowledge, there are some basics elements of professional ethics in any profession especially ICT is that one should always strive for excellence, feel accountable for what he does, he should be trustworthy in all situations. He must be respectful and courteous in his dealings with others and most important be honest. There is always a gap of improvement in life, so be competent and keep improving continually. Confidentiality is one of the most important aspects of professional ethics so always be respectful in this matter and be honorable by acting with integrity. Lastly, one should follow all the elements strictly and set an example for others to follow.

COMMUNICATION:

Through my long span with my employer, I have learned and understood the fundamental benefits and the implications of interpersonal communication. I understand that communication skills are a must-have knowledge trait for a working class person generally and professionals in particular. I learned about various types of communication including interpersonal and data communication. I also learned that if the communication happens to be between human beings, it's categorized as interpersonal communication, however, if the same happens between machines or computers it can be called data communication. Through the course of my career, I experienced and learned about verbal, non-verbal and written communications and all this improved and enhanced my communication knowledge and skills pretty well.

Like any other excellent professional all my life I have strived for getting to the highest benchmark in information and communication technology profession by displaying the best professional traits including all forms of communication skills like verbal, nonverbal and interpersonal communications. The fundamental aspects of interpersonal communication both verbal and written were acquired by me right from the initial stages of my career with my employer by interacting with my co-workers especially senior who were at their best when it comes to communication skills of all types including interpersonal communication, presentation skills, verbal and written communication skills. At my employer, I had the enormous opportunities to learn, improve and develop my communication skills in many ways. Through participating in various meetings with my co-workers, clients and different stakeholders, taking part in exhibitions, taking interviews and similar activities, I have used these opportunities to improve and polish my overall communication skills. On the basis of my learned knowledge, I can define communication as the exchange of verbal and nonverbal words and messages between two or more people or machines as I have explained above.

I have always strived for learning more and more about various types of communication in order to polish my communication skills. I learned by making project presentations, project reports, writing installation manuals and writing the warranty documentation. As a network engineering professional I know very well that communication skills are of critical and vital importance in information technology discipline the reason being that with appropriate communication and presentation to land a project by convincing the client. I have used the following set of practices regularly in order to keep improving my communication skills as a network engineer because it is an inevitable tool during the projects whether its

requirement gathering, requirements finalizing, presenting your solution to the end user, conducting training sessions of your or end user's staff etc. Throughout my professional career, I have always strived for gaining the best of communication skills necessary for my professional success in my career.

General ICT Area of Knowledge:

Technology Resources
Subtopics:

- Hardware and Software Fundamentals
- Data Communications and Networking

How have you acquired this knowledge in your working environment? Illustrate your depth of knowledge.

HARDWARE AND SOFTWARE FUNDAMENTALS:

I started learning basics of Hardware and Software Fundamentals from the very start of my professional career as computer network and systems engineer with both of my employer. Particularly with the current employer TVS Motor Company Limited, I had and still have unlimited opportunities to learn about various types of hardware and software. Through my day to day work activities and interactions with various systems, I learned quite a bit about the fundamentals of a computer system including hardware and software components.

HARDWARE:

By definition, the Hardware is the physical components of a computer or computing device which can be touched and felt by a human. During my employment, I gained a thorough knowledge about Hardware basics like Mother-Board (System Main Board), CPU, Case/chassis, Drives (RAM/ROM), Keyboard, Mouse, Monitor, and printers etc.

- **Case/Chassis**: The box that holds the circuitry for the computer. One of the main chips inside is called the Central Processing Unit or CPU for short. This acts as the "brain" to send instructions to other parts of the computer. Although there are other factors to consider, the higher the speed of the CPU, the faster the computer can send and receive information.
- **Drives**: Nearly all computers have an internal hard drive used to store information. There are many other types of drives, such as external hard drives, CD and DVD drives that can be used to store information on CDs or DVDs.
- **Keyboard:** The device used to type and enter information into the computer.
- **Mouse**: A pointing device used to move the cursor displayed on the monitor. Laptops generally use a trackpad or touchpad instead of a mouse to move the cursor.
- **Monitor**: The screen that shows the information for the computer; also called a display. Newer computers have LCD (liquid crystal display) monitors that are thinner than the older monitors.
- **Printer**: The printer takes the information displayed on the screen and prints it on paper. The most common types of printers are inkjet, which is typically used in homes and small businesses, and laser printers, which are used in schools and large businesses.

According to my learned knowledge generally almost every kind of computer consists of 4 major components;

- **Input devices**: Input devices are hardware devices which take information from the user of the computer system, convert it into electrical signals and transmit it to the processor. Some examples are Keyboard, Mouse, Image, Scanner, Microphone, Pointers, Joystick, Mouse, and Webcam etc.

- **Output devices**: Output devices take data from the computer system and convert it to a form that can be interpreted by humans. For instance, a monitor creates a visual electronic display to output information created by the processor to the user. The common examples of output devices

are Monitor, Speaker and Printer & Microphone etc.

- ⇨ **Processing devices**: Processing devices are the components responsible for the processing of information within the computer system. I have acquired knowledge of the processing devices during my career like Central processing unit (CPU), Graphics processing unit (GPU), Motherboard, Network card and Sound card etc.

- ⇨ **Storage Devices**: Storage devices are components which allow data to be stored in a computer system. This includes devices such as hard disk drives and compact disk drives. During my professional career, I came across storage media like Hard drive, Super Disk, Tape cassette, Zip diskette, Blu-Ray disc, CD-ROM disc, DVD+RW disc, Cloud storage and Network media etc.

SOFTWARE:
The term SOFTWARE can be understood as a set of instructions or orders that tell the computer what to do. In my professional career and Diplomas I understood that Software is basically categorized in three components which are;

- Programming Software
- Operating Software
- Application software

- ⇨ **Programming Software**: This software is used by computer programmers to help write computer code. Some examples are JavaScript, The TEXTPATTERN, WordPress, and Zikula etc.
- ⇨ **Operating system software**: This software runs the computer. It has the instructions for using memory, video cards, keyboards, etc. Two common operating systems are Windows XP and Macintosh OSX.
- ⇨ **Application software**: There are literally thousands of different software applications. A brief overview of some of the more common ones includes:

    - Microsoft Office – this combination of several programs includes:
    - Microsoft Word – A word processing program that is used to type such things as letters, reports, and newsletters.
    - Microsoft Excel – A spreadsheet program that can be used to calculate numerical data, store data and make charts.
    - Microsoft PowerPoint – A presentation program that is used to make slides of information and graphics.
    - Microsoft Entourage – A program that allows users to communicate through email.

DATA COMMUNICATION AND NETWORKING

Data communication and networking are two inter-related and inter-dependent terminologies because Networking is done to achieve Data Communication and there cannot be any Data Sharing or Communication without having a suitable Networking environment. I learned about this important aspect throughout my professional career with both of my employers. Presently I am working with TVS Motor Company Limited as Senior Network and Computer System Professional taking care of the networking environment as well as I have performed in various projects where I designed and installed different types of networks like LANS, CANS, and WLANs from the initial stages to the hand over stages.

Data Communication is the transmission of data between two or among the various computers or computing devices and the computer network or simply a network can be defined as the medium through which this data is transmitted or sent/received or which allow this telecommunications or transmittal of data. There must be a physical connection made between/among the computers or devices by using a wired or wireless medium. The best-known computer network that we all use in our day to day life is the

Internet.

A computer network is an interconnected system of computers or computing devices and this inter-connection provides data or information sharing among the computers or devices. The source of connection can be either wired or wireless.

According to my learned and attained knowledge there are many factors play there part in setting up the type of required network depending on the geographical areas for example; the area can be as short as few meters (Personal Area Network). The area can be a whole building and all the floors are connected through an intermediate (Local Area Network). The area can be spread across a whole town or city connecting everyone in that (Metropolitan Area Network). The area can be many cities or towns inter-connected through the single network (Wide Area Network) and the area can be ranging to cover the whole world (Inter-Network or Internet). Another factor which has integral importance in setting the type of network is the type of networking topology or the connectivity mode. Some of the types are following;

- Every device or computer is connected on this network directly to the other computer or device and at the end create a mesh-like a picture (Mesh Topology)
- All the devices on the network are connected to each other through a single medium but are disconnected area-wise, this creates a bus-like structure (Bus Topology)
- All the devices are directly connected to a single or central device creating a structure similar to star (Star Topology)
- If the devices are connected in all the above ways in the same network, it creates a Hybrid system (Hybrid Topology)

From the administration point of view, the network is categorized generally into two major categories, Private Network which is personalized to a single user or company. The other type is Public Network on which everyone can have access and can share data with each other. Another prominent factor is network architecture like Client-Server Type in which the network one or more than one computer/devices can work as Server and all others act as Client. The server takes orders and instructions on behalf of all the other computers/computing systems (clients). Peer-to-Peer where two computers/systems on the network are connected in peer to peer or back to back mode, they both acts at the same level and they are called Peer to Peer. Another type is Hybrid when the architecture of a network includes both of the above ways to connect, the architecture will be classified as Hybrid.

There are various types of networks depending upon the attributes through which they are interconnected, which can be geographical, wired or wireless, or the number of systems connected etc. On the basis of geographical attributes the networks can be distinguished in the following ways;

- Personal Area Network (PAN)
- Storage Area Network (SAN)
- Local Area Network (LAN)
- Wireless Local Area Network (WLAN)
- Wide Area Network (WAN)
- Campus/Corporate Area Network (CAN)
- Metropolitan Area Network (MAN)

Components and computer systems are interconnected to form a network, which has many benefits for everyone depending on their needs and requirements. Some of the major benefits of networking are sharing the resources like printers, scanners, and storage devices, sharing information and thoughts

through the internet, sharing data and information via emails, social interaction that is interacting through web pages and blogs and instant messages and calls in the form of audio or video conferences and so on.

All the protocols and the functioning of the network are explained by seven layers model termed as Open System International. This is a just theoretical model and immaterial.it consists of following:

First layer:
It is a physical layer and concerned with the transmission of data signals within a network. It also controls the settings of cables and other hardware devices as hub etc.
Second layer:
This is the data link layer being responsible for assigning an exclusive MAC number to the nodes so they get easily identified. At this layer, data is communicated among the systems in the form of packets.
It employs components as switches etc.
Third layer:
The network layer is the network layer involved in routing the data among the systems.it also contributes towards the management of error and sequencing data.
Fourth layer:
This is the transport layer and its functions are to make sure that data is communicated to its destination system without any hurdle.
Fifth layer:
This is the session layer which has the very important role in developing, handling and ending the link among the applications.
Sixth layer:
This is the presentation layer which makes it possible for communicating the information among the nodes no matter what kind of data format is being utilized thereby eliminating the problems of compatibility.
Final layer:
This is the application layer that enables the end user to communicate with the designated system. All issues of data transfer such as privacy, data format, and systems which are going to share information are resolved here.

SECTION 2 - RPL PROJECT REPORTS

A project report is a clear written description of a project or engagement that provides you with the opportunity to show how you perform as an ICT Professional.

Each report is to relate to a significant project or work episode undertaken by you during your professional ICT career.

The purpose of these reports is to enable you to demonstrate your command and implementation of the Areas of Knowledge described in Section 1 of this application.

Please Note: You are required to provide two project reports.

Of the two reports, one must apply to a project undertaken within the last three years, and the other for a project within the last five years.

Projects over two years long may be used for both reports under either of the following conditions:

- **The project has clearly-defined work efforts which took place in parallel, each with their own solution development and design activities and their own deliverables.**
- **The project had clearly-defined phases that were executed in succession, each with its own solution development and design activities and deliverables. Note that a second project phase that constructs and implements the solution developed by the first phase does not meet this requirement.**

Depending on the nature of your role in each project, the Project Report should cover an appropriate selection of factors.

Appropriate factors will be determined based on the type of ICT project selected. Possible factors include:

- System Analysis and Design and Software Engineering methodologies used;
- Contribution to the processes involved in the design and implementation of enterprise-wide computing systems;
- Programming languages, design paradigms and implementation procedures adopted;
- Database and/or file design and management techniques employed;
- Network topologies, including size, distribution and security facilities installed;
- Project Management and quality assurance techniques followed;
- Internet application design, including database interactivity and security measures implemented;
- ICT managerial activities, demonstrating the nature and extent of responsibilities

Project Summary:			
	Project Name	**Start Date**	**End Date**
Project 1	**Network and Server Security Solution**	**May 2012**	**Feb 2013**
Project 2	**Wireless Local Area Network**	**Oct 2014**	**June 2015**

Instructions

The following pages provide a template for your reports.

When writing your reports please provide your own thoughts – do not just copy project documentation.

Please use the first person in your discussion, so it is clear to the assessor what you did versus what others did – say "I did X" rather than "X was done".

Diagrams from the project documentation may be helpful, but the text should be in your own words. Please ensure that diagrams are relevant, readable, and help the assessor to understand what you did as a member of the project team.

If sections of the Project Report template (see below) are not relevant to your participation in the project, then leave the section blank.

Focus on quality rather than quantity. **Each Project Report should be no more than four or five pages in length.**

SPECIAL NOTE:

By submitting this RPL Knowledge and Project Report form as a component of your ACS skills assessment application, you agree with the following statement:

The applicant confirms that the explanation of their knowledge and project reports submitted in this application truthfully and accurately describe the applicant and the applicant's personal involvement in the projects. The applicant is aware that plagiarism by the applicant will automatically invalidate this application, will jeopardise any future applications from the applicant and will be reported by the Australian Computer Society to the Australian Department of Immigration and Border Protection.

Project 1: Network & Server Security Solution

1. Project Summary

1.1. Identification

Client's Company Name	TVS Motor Company Limited
Business Address	Headquarters: Chennai, India
Contact Numbers	Tel: +91-1800 4252 077
Web Address	www.tvsmotor.com
Email Address	info@tvsmotor.com
Nature of project	Network and Server Security Solution
Location of project	
Name of your employer	TVS Motor Company Limited

1.2. Duration

	From	To
Total project duration	May 2012	Feb 2013
Your involvement	May 2012	Feb 2013

1.3. Resources

	Number
Your team size	4
Total project team size	6

1.4. Personal Involvement

Please list the phases of the project in which you were personally involved

Start	Completion	Phase Description
05/12	05/12	Needs & Requirements capture
05/12	06/12	Requirements Acquisition & Sign Up
06/12	06/12	Planning Phase
07/12	08/12	Designing The Network Security Infrastructure
08/12	09/12	Modification of Exchange Server
10/12	11/12	Additional Security Measures
11/12	12/12	Network Testing
01/13	02/13	End User Acceptance Test
02/13	02/13	Network Performance Monitoring & Maintenance

1.5. Describe your role(s) and responsibilities in the project.

Role: Team Lead Networking (Senior Computer Network and Systems Professional)

I was chosen for this critical task because of my intense experience in handling this kind of projects previously. I started with a couple of meetings with client's BPOs before finalizing my team for the project. My major job roles and duties were;

- ⇨ Meeting with Users, Key Users, Business Leaders for capturing the needs and problems faced
- ⇨ Gathering total requirements before putting in front of project team for analysis
- ⇨ Analysing the requirements and brainstorming the available and best-suited solutions
- ⇨ Coordinating with the management and key users to discuss and convince them over the solution
- ⇨ Getting the end user in an agreement over the proposed solution and preparing the draft for contract
- ⇨ Getting the contract signed before starting anything practical to avoid any future misunderstandings
- ⇨ Planning and drafting the project flow and assign duties to relevant members
- ⇨ Designing the Network Security Infrastructure and documenting the key steps for Exchange Server 2007
- ⇨ Overseeing the Modification of Windows Exchange Server 2007
- ⇨ Applying the additional security-related measures
- ⇨ Cross-checking every activity to ensure accuracy
- ⇨ Testing the implemented network security solution
- ⇨ Inviting the key users to experience the real-time running of network
- ⇨ Handing over the secure network to client
- ⇨ Supervising the Network Performance Monitoring activities
- ⇨ Also providing the maintenance services wherever required

2. Business Opportunity or Problem

2.1. Describe the business opportunity or problem(s) this project addressed.

TVS Motor Company Limited is one of the largest automotive manufacturers and dealers in the country. At one of our regional facilities, we had some issues. Even though the facility had a suitable Information Technology Security Policy and Network in place; over the past few months, the administration department was facing some network security related issues. The core of the networking and sharing was Windows Exchange Server 2007 which was then connected to the internet to provide the email services.

The major issues faced were;

- The staff and student users were facing problems while logging on the email services
- There were authentication issues related to the Webmail
- One of the major issues was that many times important emails for the higher management got intercepted through internet hacking from outside the college

The major expectations made from the client's end were following;

- The email services must be safer and authentic to log in
- Unauthorised users must not be able to log in to the email services in any way
- The management emails must be kept safe and secure
- The required system must be capable of tracing and detecting the trespassers at any level

The Webmail service must be secure and authenticated

3. Solution

3.1. Discuss your contribution to the solution, project or engagement.

CONTRIBUTION TO THE SOLUTION:
As computer network and system professional and networking team lead, I was the main person to be relied on for the solutions and my presence was for sure at all levels and phases. My major contribution towards the solution was;

- ⇨ I investigated the complete network and Exchange Server in detail to find out loopholes and security errors
- ⇨ While requirement gathering I made detailed discussions with the key users to have their experience on the problems faced because according to my experience the information gathered from the key users is to the point and accurate
- ⇨ I brainstormed along with my team discussing all the presented issues and counter-checking all the available and proposed solution before selecting the best-suited one.
- ⇨ After signing the agreement I used my project management skills by distributing the tasks among team members so that every detail could be addressed
- ⇨ As per available information, I designed the Network Security Infrastructure
- ⇨ I suggested the complete modification of Windows Exchange Server to make it secure against any chances of malicious attacks and hacking
- ⇨ I developed and upgraded the most suitable Firewall in order that every incoming email and data terminating on the Server get scanned for viruses
- ⇨ I applied Integrated Windows Authentication methods for the users to experience the most secure OWA log-ins.
- ⇨ In addition, I recommended and implemented the windows certificate services to make the security level well-enhanced
- ⇨ I made the SSL channel a complementary role while having the session with the windows exchange server so that the chances of hacking become minimal
- ⇨ I applied the POP services as per standards
- ⇨ Email services were made more secure and actively authenticated
- ⇨ Gathering the needs and requirements was also my responsibility
- ⇨ Locking the requirements and preparing the project scope document
- ⇨ Got the client to an agreement over the proposed solution
- ⇨ I designed the network security architecture
- ⇨ I supervised the network security implementation
- ⇨ After that, I conducted the network testing
- ⇨ Then I conducted the end user testing in real time environment
- ⇨ I supervised the smooth handover phase
- ⇨ Oversaw the Network Performance Monitoring phase
- ⇨ Provided additional maintenance after hand over

3.2. Describe any design or problem solving methods you used on this project.

DESIGN METHOD ADOPTED:
Depending on my previous experience and trust I opted for the state of the art "TOP-DOWN Network Design Methodology". The major reason behind was that this methodology focuses on the client's requirements from the very start of the project.

- It also focuses the end user's needs for the network applications and services
- It facilitates the vital future requirements to be considered and accounts for the upgrades when required.
- TOP DOWN method is not only a methodology but it is more like a concept which allows the client's requirements to be addressed in a priority mode.
- It simply analyses the company's needs from a higher level and instead of choosing the network equipment
- It starts with requirements and needs analysis and using this information as an inspiration to design the solution.

3.3. List the major deliverables of the project that you were responsible for or contributed to.

The list of major deliverables was;

- ⇨ Gathering & Locking the requirements and preparing the project scope
- ⇨ Getting the contract signed from client
- ⇨ Designing the network security architecture
- ⇨ Network security implementation
- ⇨ Making the Exchange Server secure
- ⇨ Applying the secure and powerful Firewall
- ⇨ Making the Webmail secure and safe
- ⇨ Separating the Management mail from other departments

4. Results

4.1. Was your solution implemented? If so, describe the role, if any, you had in the implementation.

Yes, the solution was implemented. I was heading the project as well as performing my duties as network security engineer. I designed the network security architecture and implemented it to the best of my experience and knowledge. I recommended the additional security measures to make the POP, Webmail and email services secure and feasible. I applied state of the art Firewall solution to secure the server.

4.2. *Assess the overall success or failure of the project.*

The project was a huge success and enhanced my experience and confidence. I along with my team made every effort to make the network as secure as possible and the best thing was that we achieved the target in specified time frames. Management and projects department, as well as the client, were quite satisfied and happy with the end result.

4.3. Lessons Learned

In retrospect, what you might have done differently on this project?

Nothing as such, because the required measures were taken to make the network especially exchange server as secure as possible from the threats and malicious attacks from outside or inside. Also, the additional security measures were implemented to enhance the overall security level.

Project 2: Wireless Local Area Network

5. Project Summary

5.1. Identification

Client's Company Name	TVS Motor Company Limited
Business Address	Headquarters: Chennai, India
Contact Numbers	Tel: +91-1800 422 077
Web Address	www.tvsmotor.com
Email Address	info@tvsmotor.com
Nature of project	Wireless Local Area Network
Location of project	
Name of your employer	TVS Motor Company Limited

5.2. Duration

	From	To
Total project duration	Oct 2014	Jun 2015
Your involvement	Oct 2014	Jun 2015

5.3. Resources

	Number
Your team size	6
Total project team size	8

5.4. Personal Involvement

Please list the phases of the project in which you were personally involved

Start	Completion	Phase Description
10/14	10/14	Requirement gathering, analysis & Locking
10/14	10/14	Preparation of Project Scope & Sign Up
10/14	11/14	Task Distribution & Project Initiation
11/14	12/14	Designing the Logical
01/15	03/15	Designing the Cabling layout & Hardware Placements
03/15	04/15	Network Implementation & Integration
04/15	05/15	Network Testing & Performance Monitoring
05/15	06/15	Project Delivery & Technical Support

5.5. Describe your role(s) and responsibilities in the project.

Role: Networking Team Lead

IT department head gave me the responsibility to undertake this assignment. I was given the full authority to execute the project from the initial stage. I selected my team of network professionals and designers. My major responsibilities as Team Leader were following;

- ⇨ Meeting with Administration Department BPOs to gather requirements
- ⇨ Analyse requirements and current network situation
- ⇨ Suggest the best-suited solution and making presentation to convince the end user's BPOs
- ⇨ Preparation of Project Proposal (Scope & Steps of Execution) and getting the end user to an agreement
- ⇨ Designing the logical structure of the network
- ⇨ Designing and supervising the Physical Network Design like Cabling Layouts, Router Placements, and other network aspects
- ⇨ Preparation of Network Installation Manual for the guidance for installation team
- ⇨ Reviewing the Hardware Procurement Proposals and selection of network hardware and devices like Wireless routers, Modems, and Ethernet Cable
- ⇨ Making every computer and device on the network is installed or pre-installed with wireless network connection capability to be able to work properly on the same network
- ⇨ Carrying out the implementation and making sure every bit of the detail is considered and taken care of
- ⇨ Conducting the Network Integration of network equipment and computing hardware and software to achieve the suitable network environment
- ⇨ Conducting the network testing and end user acceptance test
- ⇨ Supervising the smooth project delivery
- ⇨ Conducting and monitoring the Network Performance Monitoring phase
- ⇨ Providing the technical support at the end

6. Business Opportunity or Problem

6.1. Describe the business opportunity or problem(s) this project addressed.

TVS Motor Company's management has always believed in keeping a constant upward move and following the same belief, TVS's Honda Motorcycles Agency opened a new sales and distribution facility in the same city but in location.
The facility consisted of two main buildings and the need was to deploy networking for the new facility. The new network was required to be safe and secure as well as it must have capabilities for possible future extensions if required. Additionally, the wireless facility was needed for laptop and smartphone users.

7. Solution

7.1. Discuss your contribution to the solution, project or engagement.

CONTRIBUTION TOWARDS THE SOLUTION AS WELL AS AN OVERALL PROJECT:

- ⇨ Suggesting the Local Area Network best suited for the client commercially and technically
- ⇨ Logical and Physical design, cabling layout
- ⇨ Hardware Selection
- ⇨ Network Preparation
- ⇨ Implementation
- ⇨ Requirement gathering and analysis
- ⇨ Preparation of Project Scope
- ⇨ Getting the client on an agreement over suggested networking solution
- ⇨ Task distribution and assigning duties to relevant teams
- ⇨ Taking care of the hardware procurement process
- ⇨ Supervising the designing process in addition to doing my own part
- ⇨ Ordering the appropriate DSL through following company's standard procurement process
- ⇨ Installing the Wireless Network Cards for the older version of computers to make them capable of networking
- ⇨ Taking part and supervising the network installations, cable laying, routers placements and connection to the Modem
- ⇨ Taking care the network hardware and software integration and enabling every computer to share resources
- ⇨ Testing the network and inviting the end user for acceptance test
- ⇨ Supervising the smooth project delivery and monitoring the Network Performance
- ⇨ Providing the technical support after hand over in order to help the client's personnel getting used to the new network environment

7.2. Describe any design or problem solving methods you used on this project.

DESIGN METHOD ADOPTED:

Depending on my previous experience and trust I opted for the state of the art "TOP-DOWN Network Design Methodology". The major reason behind was that this methodology focuses on the client's requirements from the very start of the project.

- It also focuses the end user's needs for the network applications and services
- It facilitates the vital future requirements to be considered and accounts for the upgrades when required.
- TOP DOWN method is not only a methodology but it is more like a concept which allows the client's requirements to be addressed in a priority mode.
- It simply analyses the company's needs from a higher level and instead of choosing the network equipment
- It starts with requirements and needs analysis and using this information as an inspiration to design the solution.

7.3. List the major deliverables of the project that you were responsible for or contributed to.

Major deliverables that I parts of or responsible of were;

- ⇨ Requirement gathering and locking
- ⇨ Finalization of Scope and Contract signature
- ⇨ Logical Design of the Network
- ⇨ Physical cabling layout, Router Placements, WIFI network cards installation,
- ⇨ Network overall implementation and error fixing
- ⇨ Ordering the DSL line for connecting the network to internet
- ⇨ Integrating all the hardware devices on the network to achieve resource sharing like a printer, scanner, and main database.
- ⇨ Taking care of the network testing phase and end-user acceptance test
- ⇨ Making sure the timely and smooth project delivery
- ⇨ Providing the technical support after project delivery

8. Results

8.1. Was your solution implemented? If so, describe the role, if any, you had in the implementation.

Yes, the solution suggested and presented by me was successfully implemented and the network was executed. I was Team Lead for networking side taking care of everything from the start of the project. I was responsible for the timely and effective execution of every phase and responsible for my team's every move.

8.2. Assess the overall success or failure of the project.

The project was a major success as we delivered what we agreed. The management and my own department manager were very happy with my performance and it resulted in an additional experience of managing the overall project. This experience helped me get to another level in my career.

8.3. Lessons Learned

In retrospect, what you might have done differently on this project?

Nothing to mention here as everything went as planned. Each and every step to be executed was pre-planned and put into writing in the project scope proposal prepared by myself.