# Simple Office Network Configuration – Summary Report

## 1. Overview

This network represents a small office setup connecting four departments—IT, Marketing, Sales, and Admin—through a single integrated network. The goal of the configuration is to provide reliable connectivity between all departments and allow access to shared resources, such as a centralized printer, while maintaining a clear routing and addressing structure.

## 2. Network Components

The network includes the following devices:  
- 1 Router – Provides internal routing and acts as the main gateway for inter-device communication.  
- 1 ISP Router – Connects the local office network to the external network or internet.  
- 1 Switch – Serves as the central point for connecting all end-user devices and shared resources.  
- 4 PCs – Represent the workstations used by the IT, Marketing, Sales, and Admin departments.  
- 1 Network Printer – A shared printer connected to the switch for centralized office use.

## 3. Addressing Scheme

Static IP addressing was implemented across all devices. Each department PC was assigned a unique IP address within the same network range to simplify configuration and maintenance. The main router was configured with a gateway address to facilitate communication between the internal network and the ISP router.

## 4. Routing

The main router manages packet forwarding within the internal office network and provides connectivity to the ISP router. The ISP router serves as the connection point to the internet or external network services. Static routes were manually configured to ensure predictable communication paths and straightforward network control.

## 5. Printer Configuration

A centralized network printer is connected directly to the switch, making it accessible to all departments. Because the network uses static IP addresses, each department’s PC can reach the printer through its assigned IP address. This design simplifies access and minimizes connectivity issues.

## 6. Connectivity and Functionality

Each department PC connects to the switch via a wired Ethernet connection for stable communication. The router provides internal routing and ensures all departments can access shared resources. The ISP router enables external connectivity, allowing the office network to reach the internet if required. Static addressing improves control, simplifies troubleshooting, and ensures consistency in device identification.

## 7. Conclusion

The simple office network configuration offers a stable and manageable infrastructure suitable for a small business. It connects multiple departments through a single switch, routes traffic efficiently between internal devices and the ISP router, and supports shared access to a central printer. Static IP addressing enhances reliability and makes network management easier. For future scalability, adding a DHCP server for automated addressing and implementing access control lists (ACLs) would improve flexibility and security.