**Static NAT and Static Routing Simulation in Packet Tracer**

**🧠 Project Objective**

* Simulate a real-world scenario where multiple PCs inside a LAN use Static NAT to communicate with external PCs across an ISP.
* Configure static routes to ensure proper end-to-end communication.
* Test NAT translation and routing behavior.

**🖥️ Topology Overview**

A computer network diagram with words

AI-generated content may be incorrect.

**📋 IP Addressing Table**

| **Device** | **Interface** | **IP Address** | **Subnet Mask** | **Default Gateway** |
| --- | --- | --- | --- | --- |
| PC0 | NIC | 192.168.1.10 | 255.255.255.0 | 192.168.1.1 |
| PC1 | NIC | 192.168.1.11 | 255.255.255.0 | 192.168.1.1 |
| PC2 | NIC | 192.168.1.12 | 255.255.255.0 | 192.168.1.1 |
| LAN Router G0/0 | - | 192.168.1.1 | 255.255.255.0 | - |
| LAN Router G0/1 | - | 200.0.0.2 | 255.255.255.0 | - |
| ISP Router G0/0 | - | 200.0.0.1 | 255.255.255.0 | - |
| ISP Router G0/1 | - | 150.1.1.1 | 255.255.255.0 | - |
| ISP-PC0 | NIC | 150.1.1.2 | 255.255.255.0 | 150.1.1.1 |
| ISP-PC1 | NIC | 150.1.1.3 | 255.255.255.0 | 150.1.1.1 |

**📈 Testing**

* From PC0, PC1, PC2 ➔ Ping 150.1.1.2 (ISP-PC0) and 150.1.1.3 (ISP-PC1).
* From ISP-PCs ➔ Ping public IPs (200.0.0.10, 200.0.0.11, 200.0.0.12).
* Check NAT table on LAN Router:

**📚 Conclusion**

* Successfully configured **Static NAT**.
* Built and validated **Static Routing** between LAN and ISP.
* Achieved full **end-to-end communication** simulation.