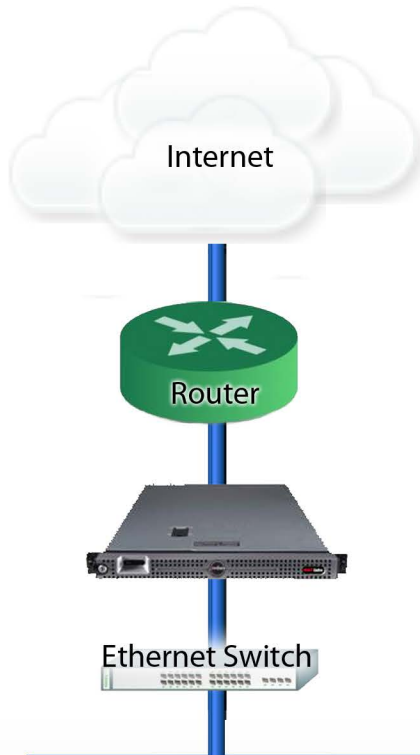


# Do your hotel guests complain about slow internet access?



**When there's heavy usage  
in your hotel network,  
no matter how big your bandwidth is,**

**this could happen...**



**Multi-Tier QoS can solve this problem. Absolutely.**

# I. Initial Condition



An experiment was conducted to simulate what happens when there's heavy P2P file-sharing in a network that only has bandwidth rate limit.

TWO SCENARIOS WERE PREPARED WITH THE FOLLOWING:

**2Mbps bandwidth**  
**3 laptops**

Scenario 1 starts with a simulation of normal network activity such as internet browsing.

A speed test was done at [www.speedtest.net](http://www.speedtest.net) and it shows that when there's no P2P file-sharing, the network runs smoothly..



# II. Upon heavy network usage



AT 2MBPS BANDWIDTH CAP:

In this scenario, at bandwidth rate limit, users on PCs1 and 2 are hogging the bandwidth by downloading files via BitTorrent.

This leaves none for PC3 user.

# I. Initial Condition

The following settings were done on InnGate3's Multi-Tier QoS:

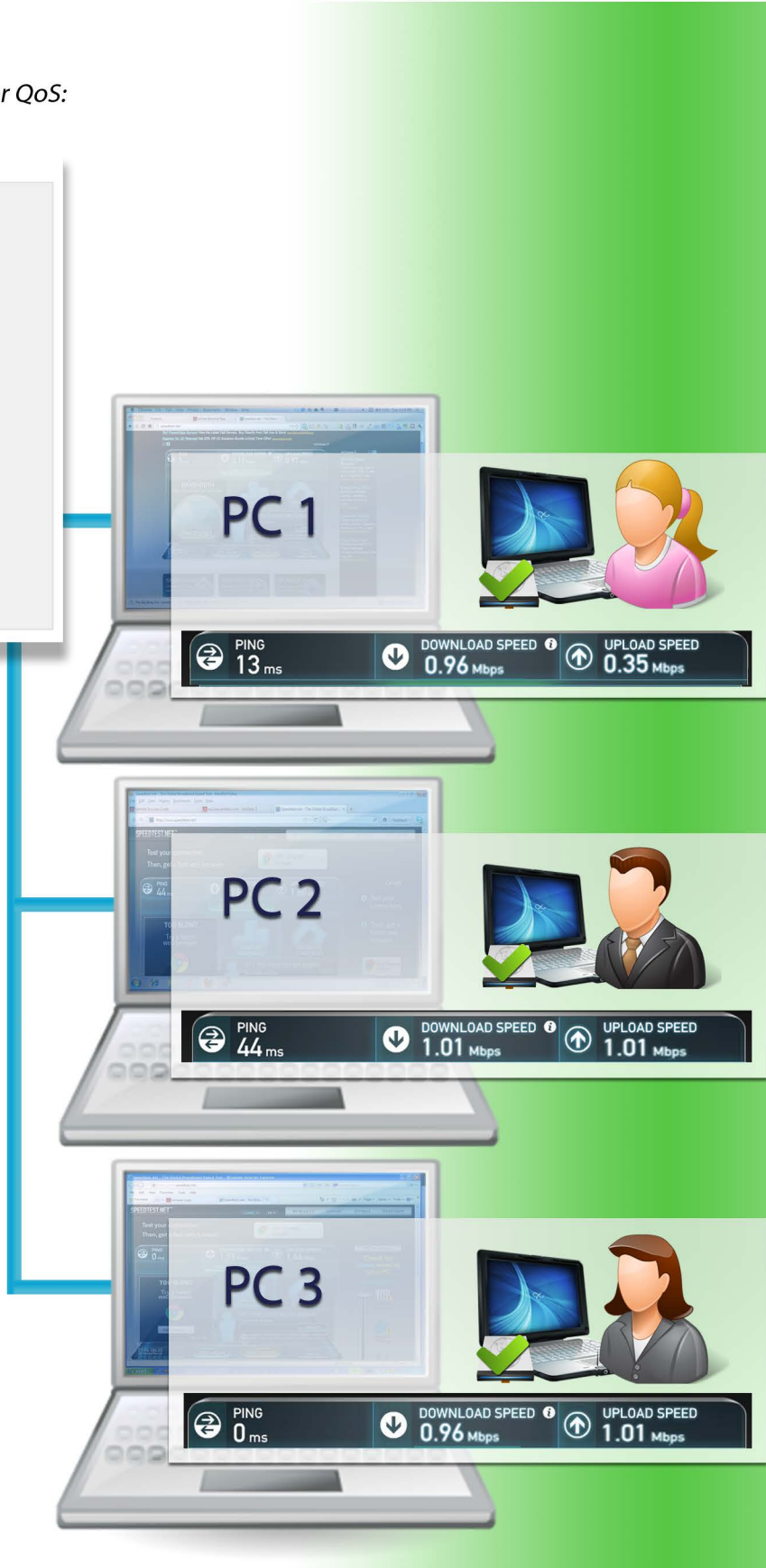
QoS Class (WAN Rate limit will be ignored if the QoS mode is set to Multi Tier)

	Download Bandwidth	Upload Bandwidth
Total Bandwidth	2 Mbps	2 Mbps
Guaranteed Bandwidth Tier		
<input type="checkbox"/> GBT-1	[ ] Kbps	[ ] Kbps
<input type="checkbox"/> GBT-2	[ ] Kbps	[ ] Kbps
<input type="checkbox"/> GBT-3	[ ] Kbps	[ ] Kbps
<input type="checkbox"/> GBT-4	[ ] Kbps	[ ] Kbps
<input type="checkbox"/> GBT-5	[ ] Kbps	[ ] Kbps
Premium Bandwidth Tier		
PT-6	2 Mbps	2 Mbps
Complimentary Bandwidth Tier		
<input type="checkbox"/> CT-7	[ ] Kbps	[ ] Kbps



STILL AT 2MBPS BANDWIDTH CAP:

- Multi-Tier QoS was enabled.
- PC 3 was placed on Premium Bandwidth Tier (as shown above).
- Normal browsing activity and speed test was done.



# II. Even with heavy network usage



**2Mbps**

With Multi-Tier QoS,  
everybody stays online  
-- even with heavy  
network users around!

