

Barkan Wireless Access Technologies, L.P. v. Cellco Partnership
D/B/A/ Verizon Wireless
No: 2:16-cv-293-JRG-RSP

Barkan Patent Technology Tutorial

'306 & '369 Patents

Introduction

- The purpose of this tutorial is to cover specific technologies directly addressed in the patent claims being asserted.
- The patents-in-suit are U.S. Patent No. 9,042,306 (“306 patent”), and U.S. Patent No. 8,559,369 (“369 patent”).
- The claims include computing device, system, and method claims underlying the concept of “tethering,” or using a cellular phone as a mobile hotspot.
- “Tethering” is the sharing of a mobile device's internet connection with other wirelessly connected computers. See en.wikipedia.org/wiki/Tethering.

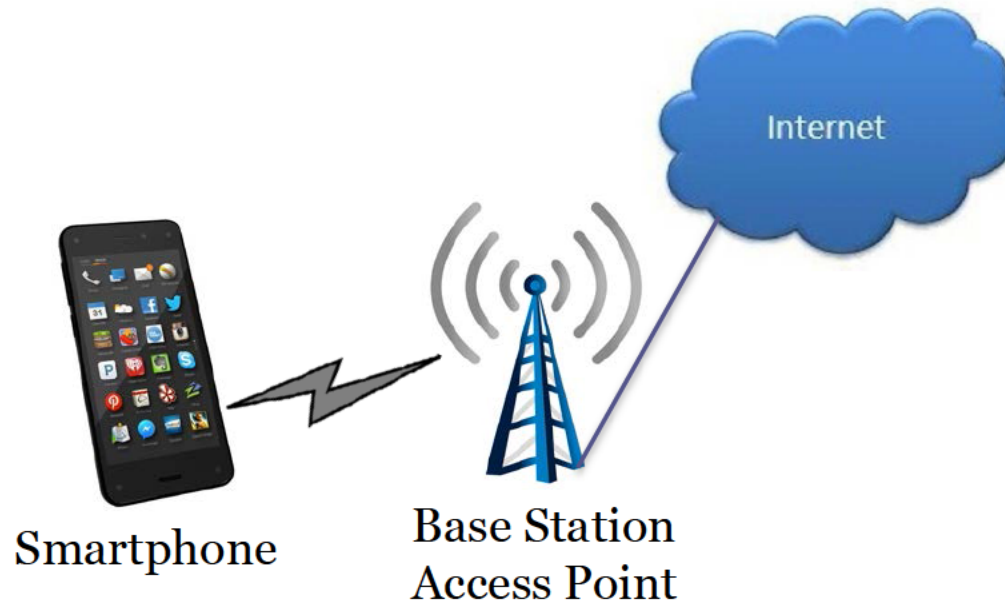
Tethering Illustration

- Tethering enables, for example, a smartphone connected to the Internet via a 3G cellular data connection to act as a mobile WiFi hotspot for other wireless devices, such as a tablet computer, laptop computer, or personal data assistant (PDA).



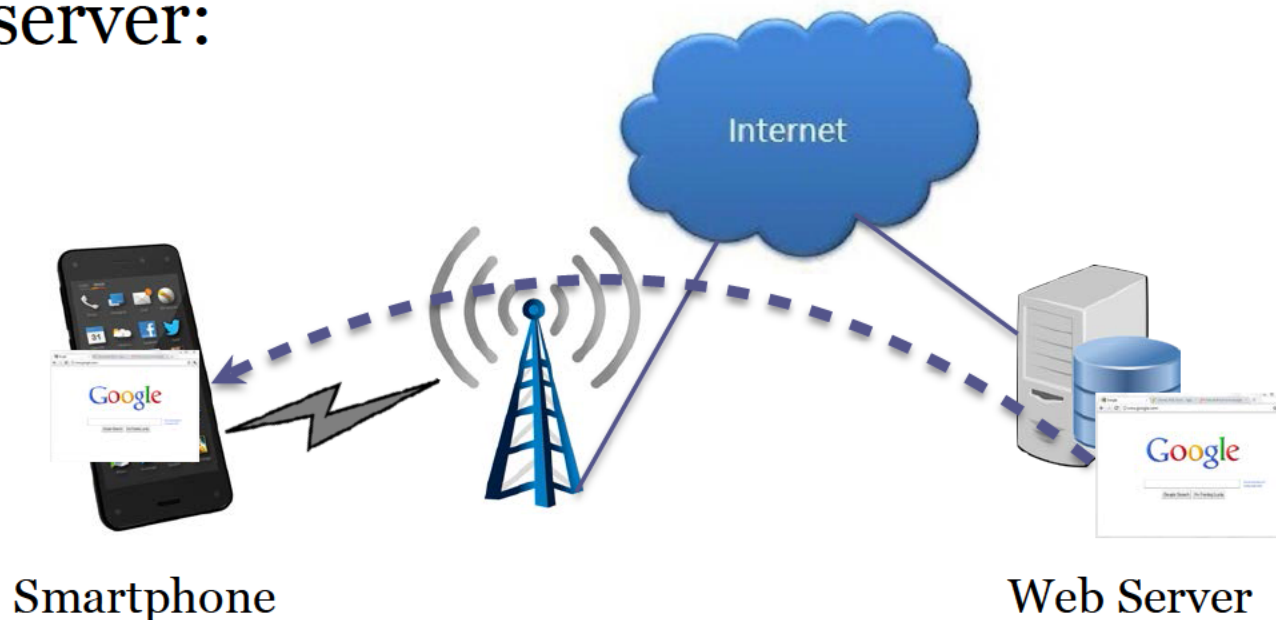
Basic Cellular Data Connection

- Smartphones connect to the Internet via a cellular base station access point:



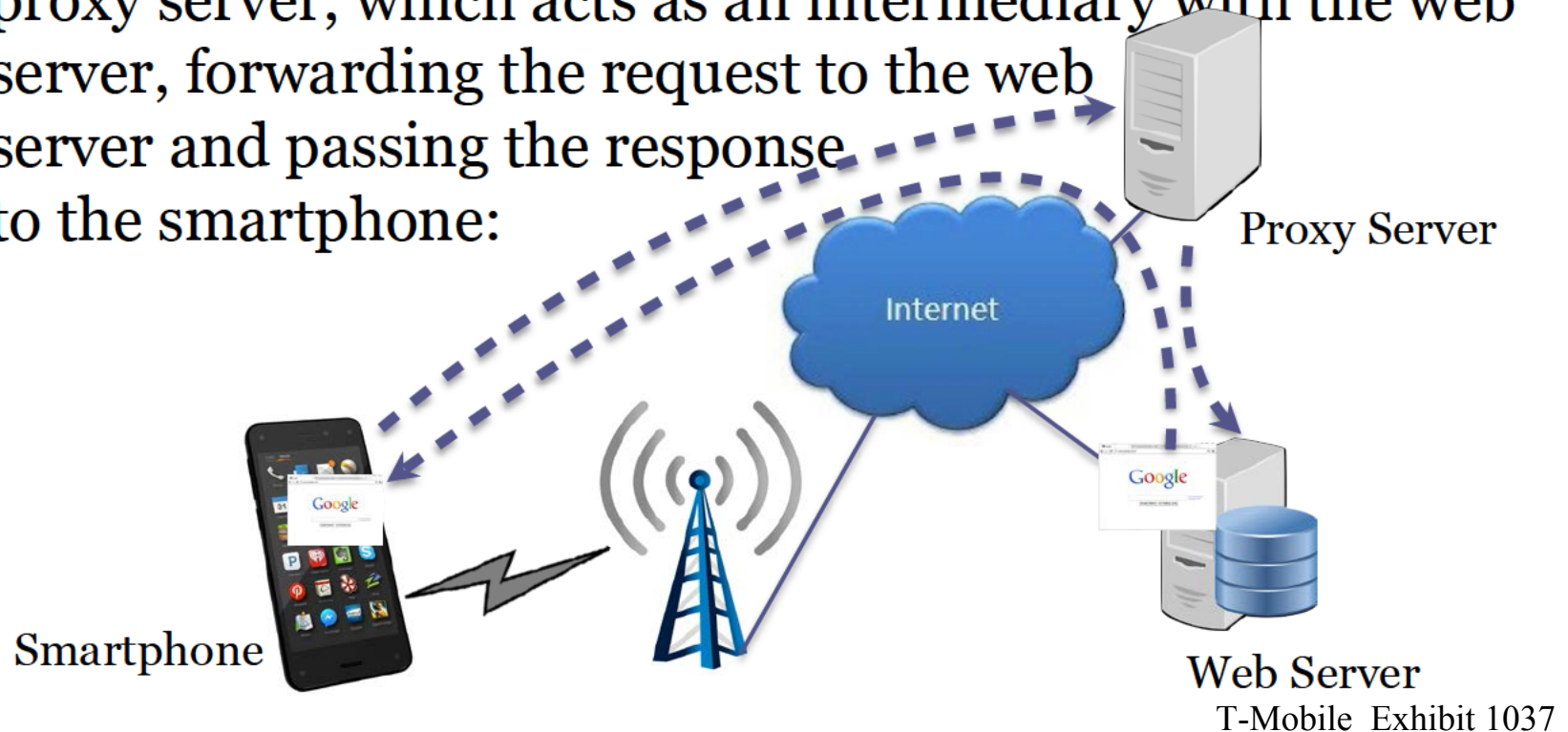
Cellular Data - Retrieving Web Pages

- Among other things, the smartphone can use this Internet connection to retrieve web pages from a web server:



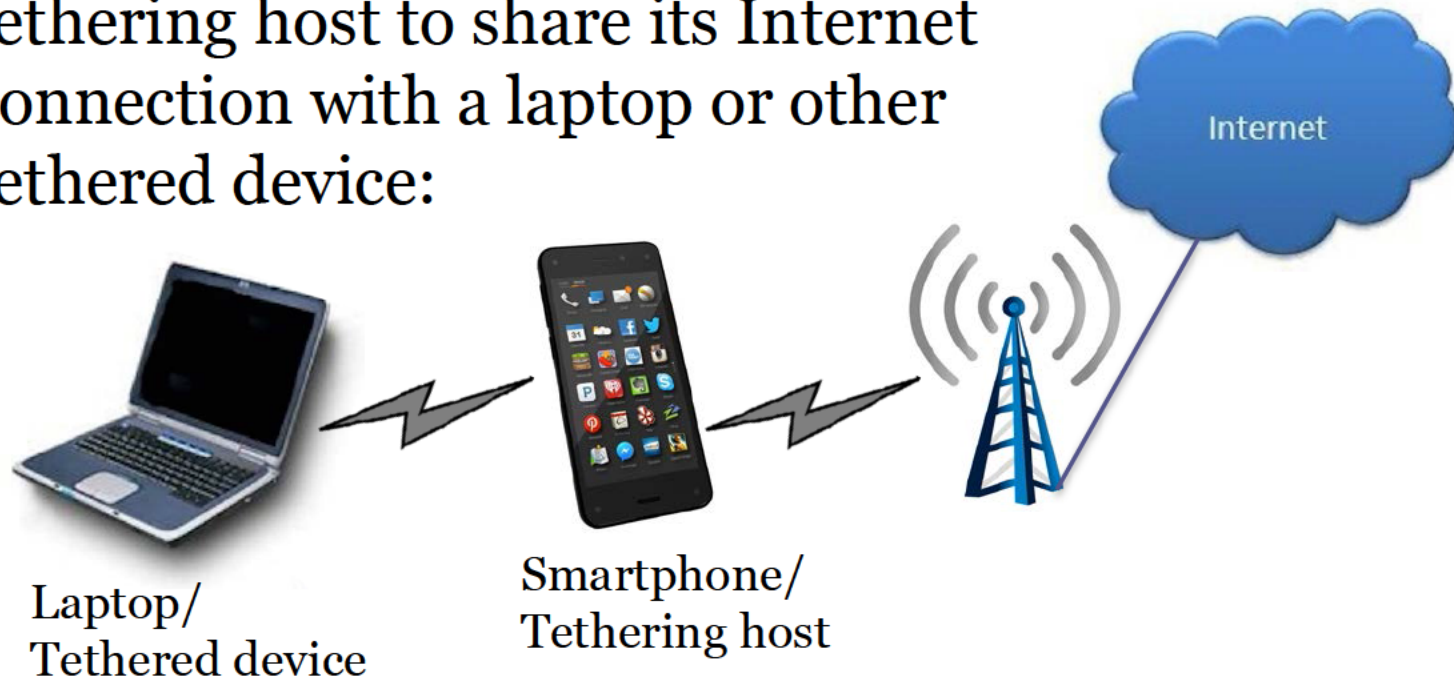
Retrieving Web Pages Via a Proxy Server

- Instead of having its own unique IP address for communicating directly with the web server, the smartphone is able to send a request for a web page to a proxy server, which acts as an intermediary with the web server, forwarding the request to the web server and passing the response to the smartphone:



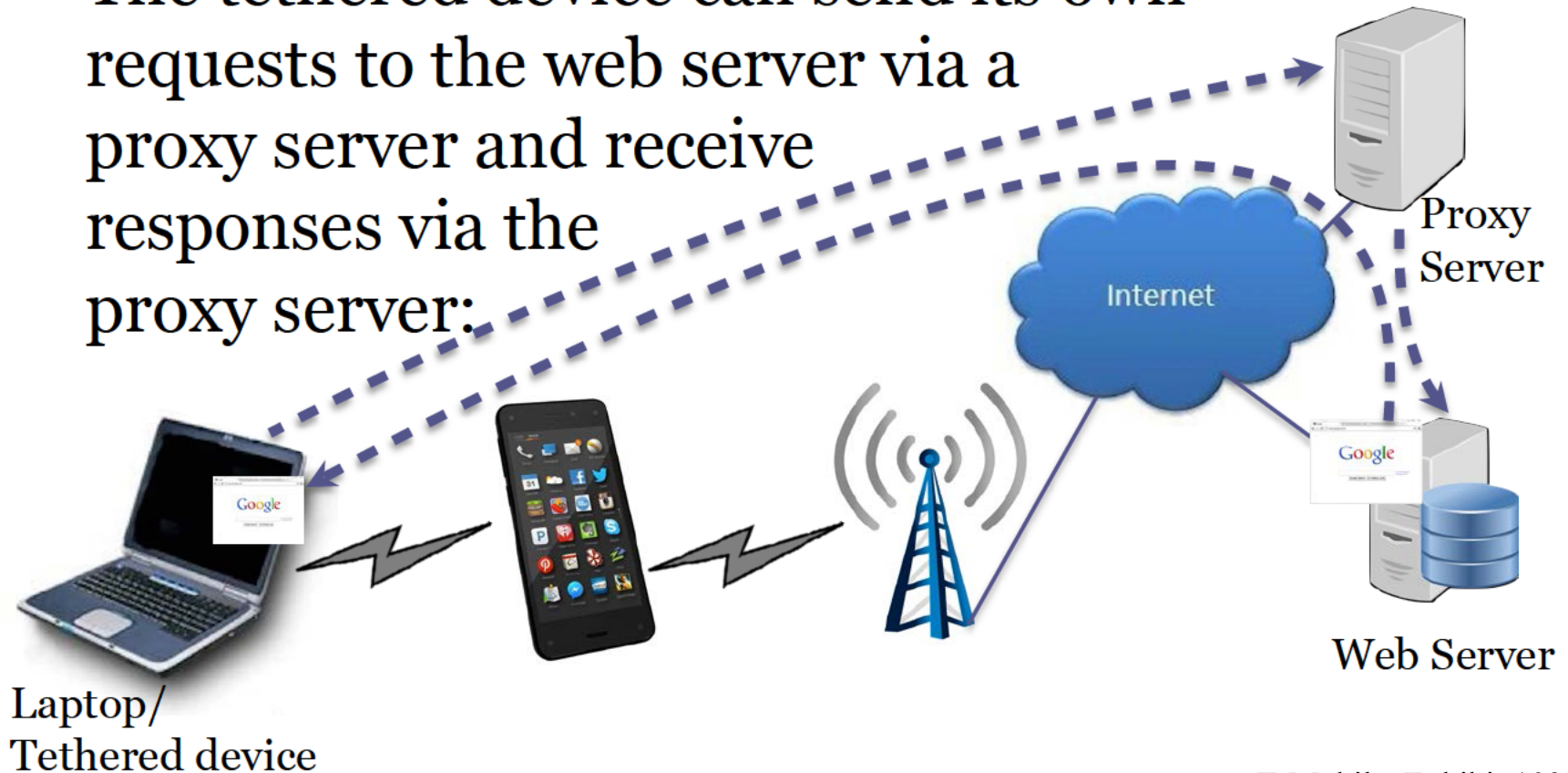
Tethering - Connecting to the Internet

- In addition to allowing a user to retrieve web pages to a smartphone, the smartphone is also able to act as a tethering host to share its Internet connection with a laptop or other tethered device:



Tethering - Retrieving Web Pages

- The tethered device can send its own requests to the web server via a proxy server and receive responses via the proxy server:



Representative System Claim 16

- System claim 16 of the '306 patent is representative of the claimed subject matter:

16. A system comprising:

a **first wireless access point (AP)** connected to an **IP based network**, the first wireless AP having a first AP Identification (APID);

a **proxy server** connected to the IP based network and adapted to act as a proxy of at least a subset of computing devices that connect via the first wireless AP; and

a **first computing device having a user interface...**

Illustration of System Claim 16

- The elements of system claim 16 include:
a **first wireless access point (AP)**
connected to an **IP based network**, the first
wireless AP having a first AP
Identification (APID)...

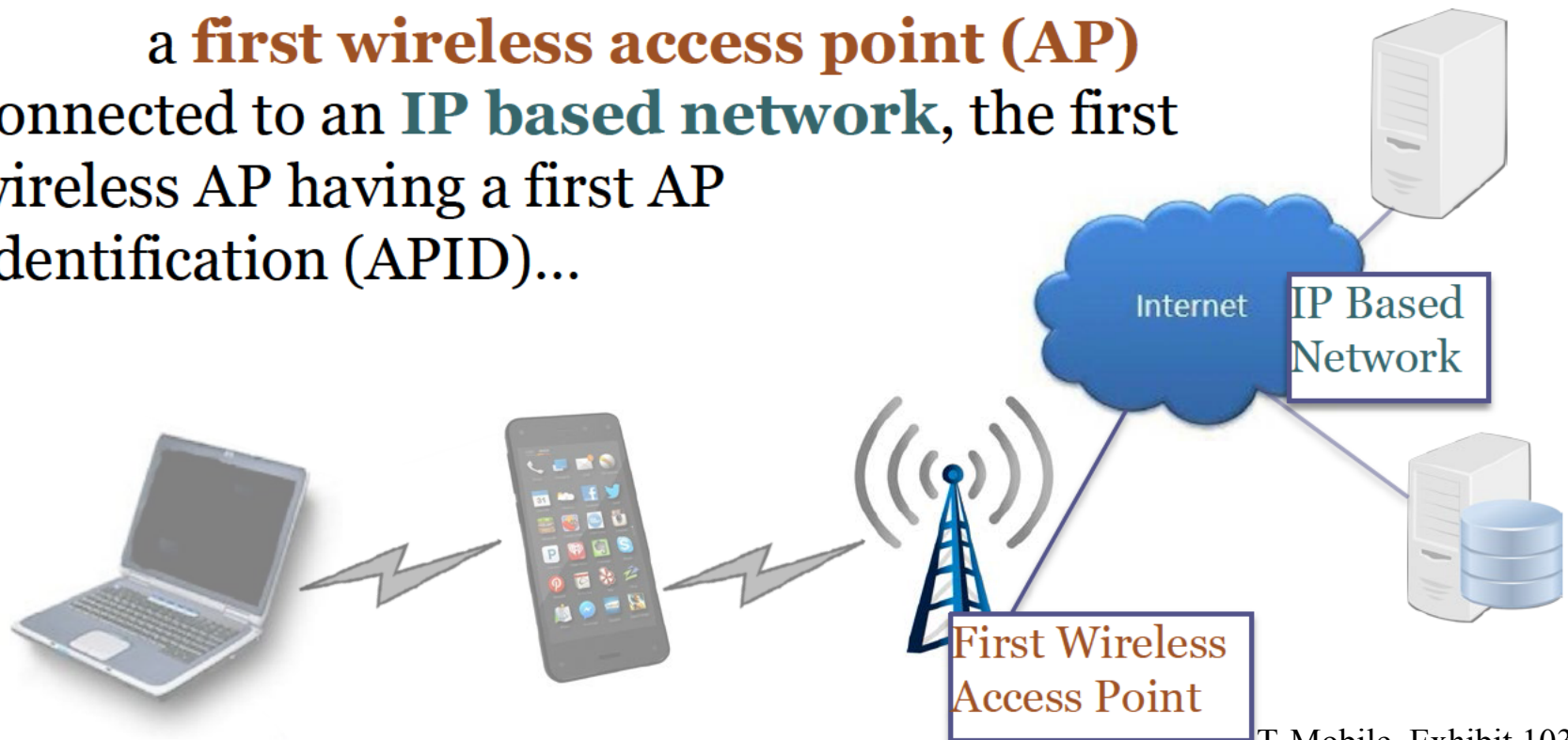


Illustration of Claim 16 (continued)

- System claim 16 also includes:
 - a **proxy server** connected to the **IP based network** and adapted to act as a proxy of at least a subset of computing devices that connect via the **first wireless AP**; and...

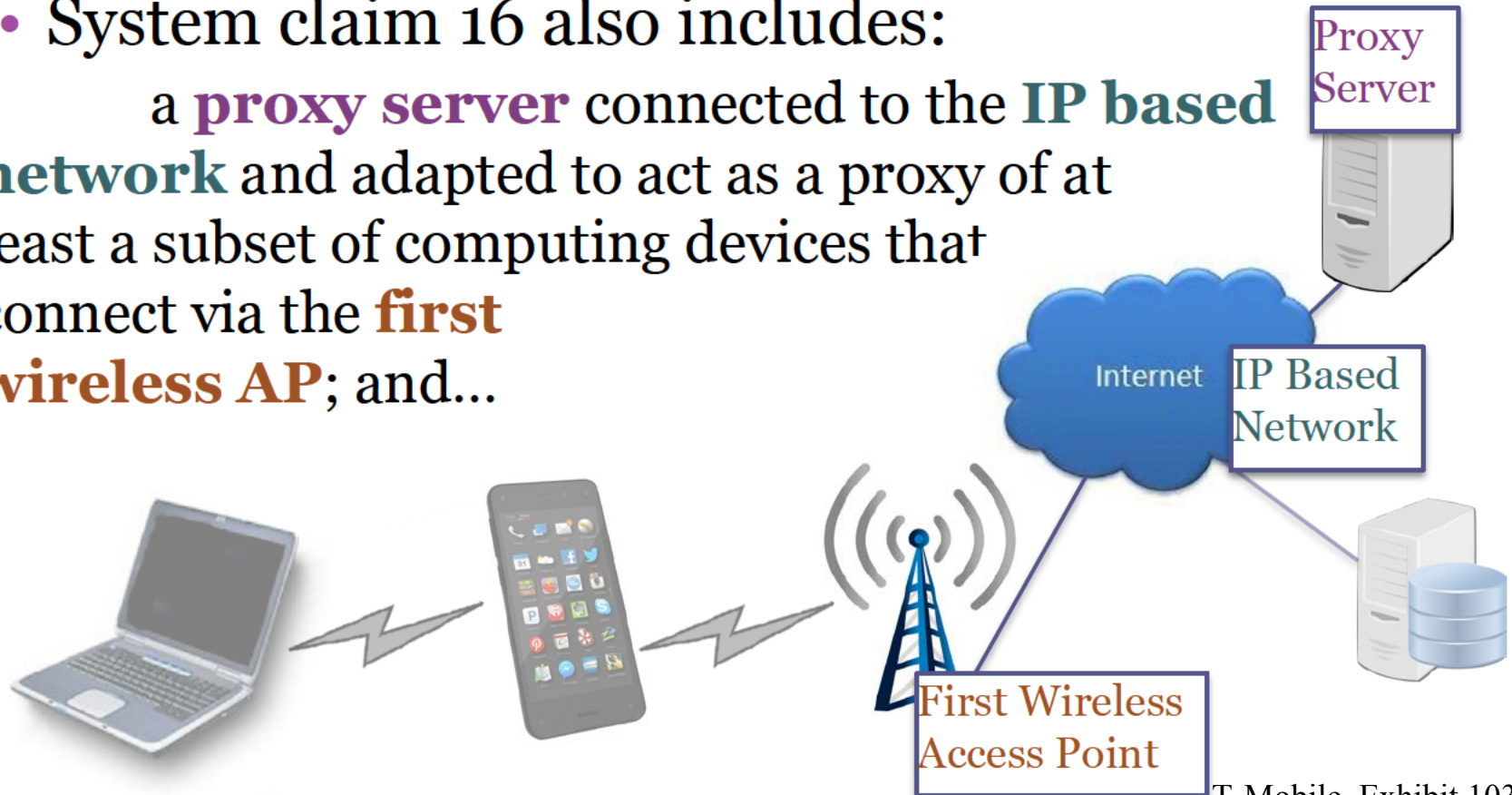
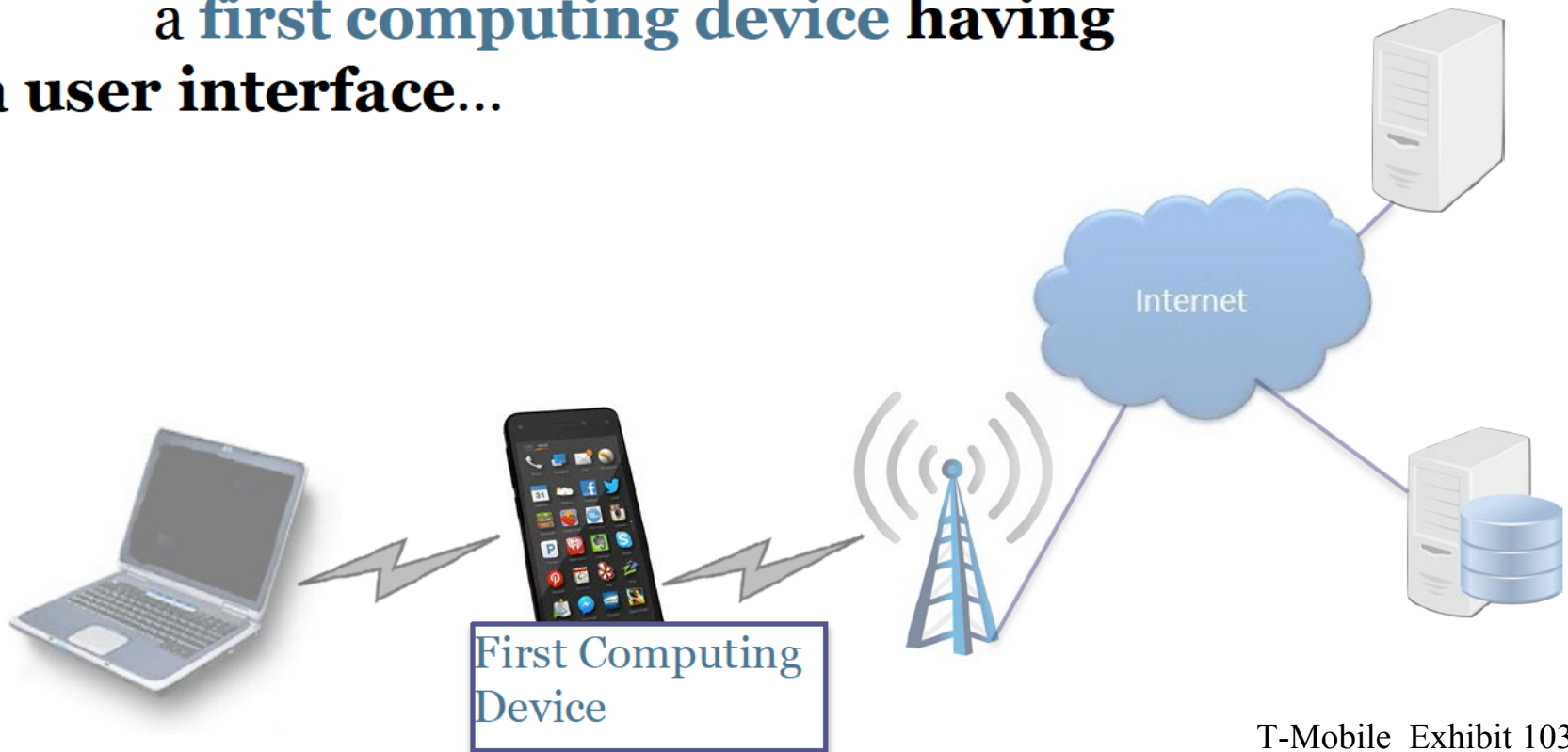


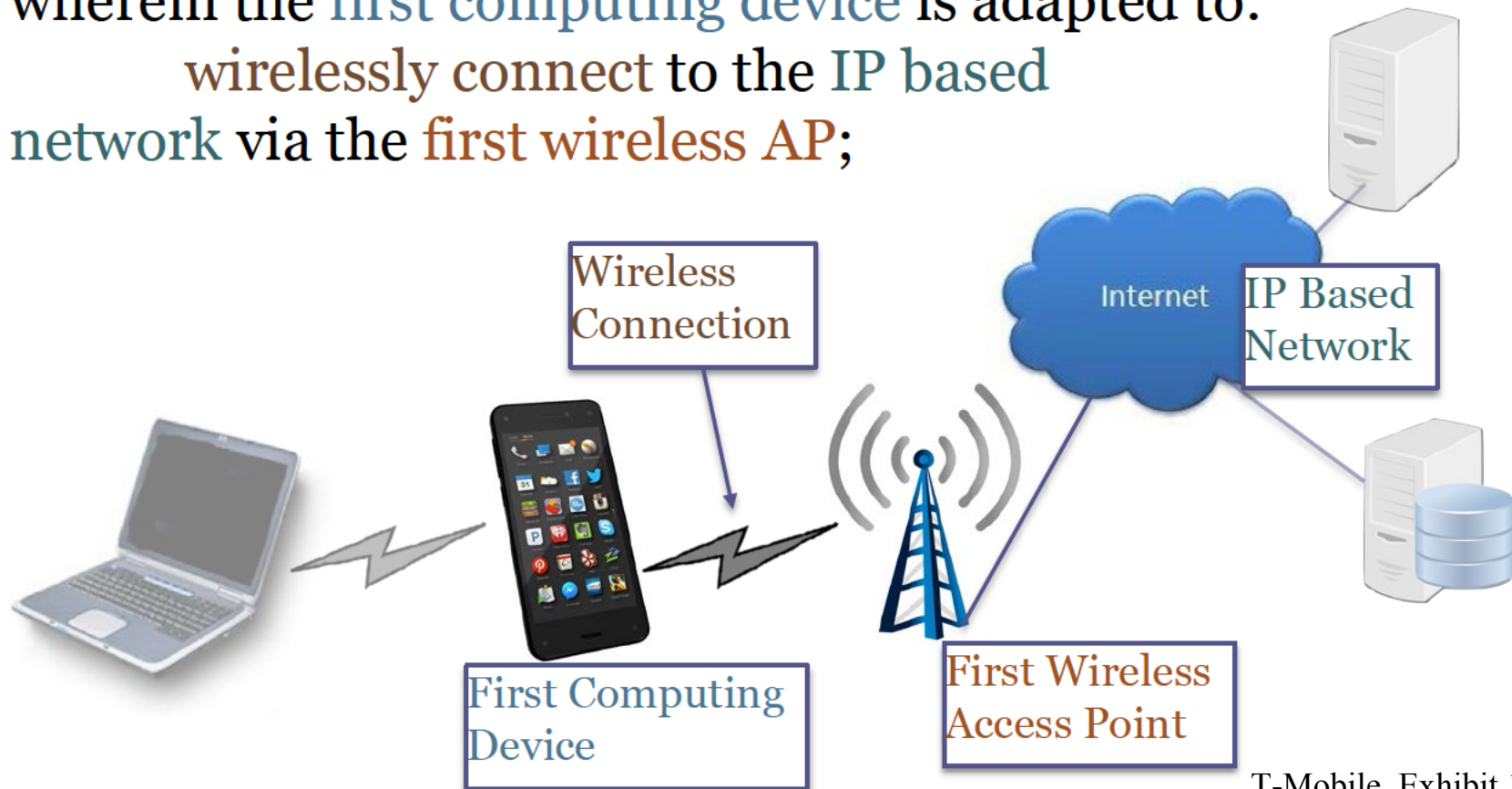
Illustration of Claim 16 (continued)

- System claim 16 also includes:
a **first computing device having a user interface...**



Claim 16 - Wireless Connection

wherein the first computing device is adapted to:
wirelessly connect to the IP based
network via the first wireless AP;



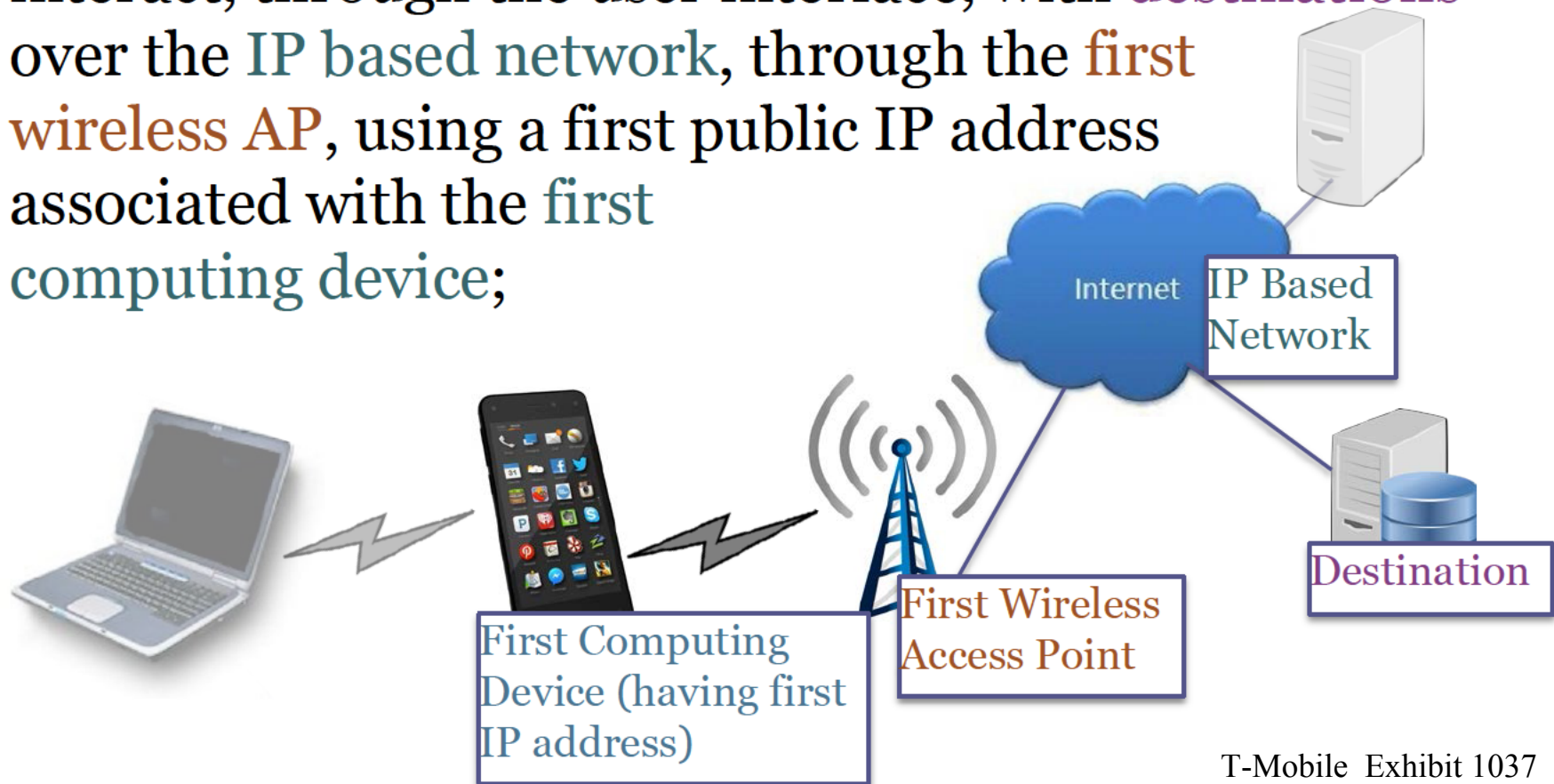
Claim 16 - Wireless Communication

wirelessly communicate with other wireless enabled computing devices;



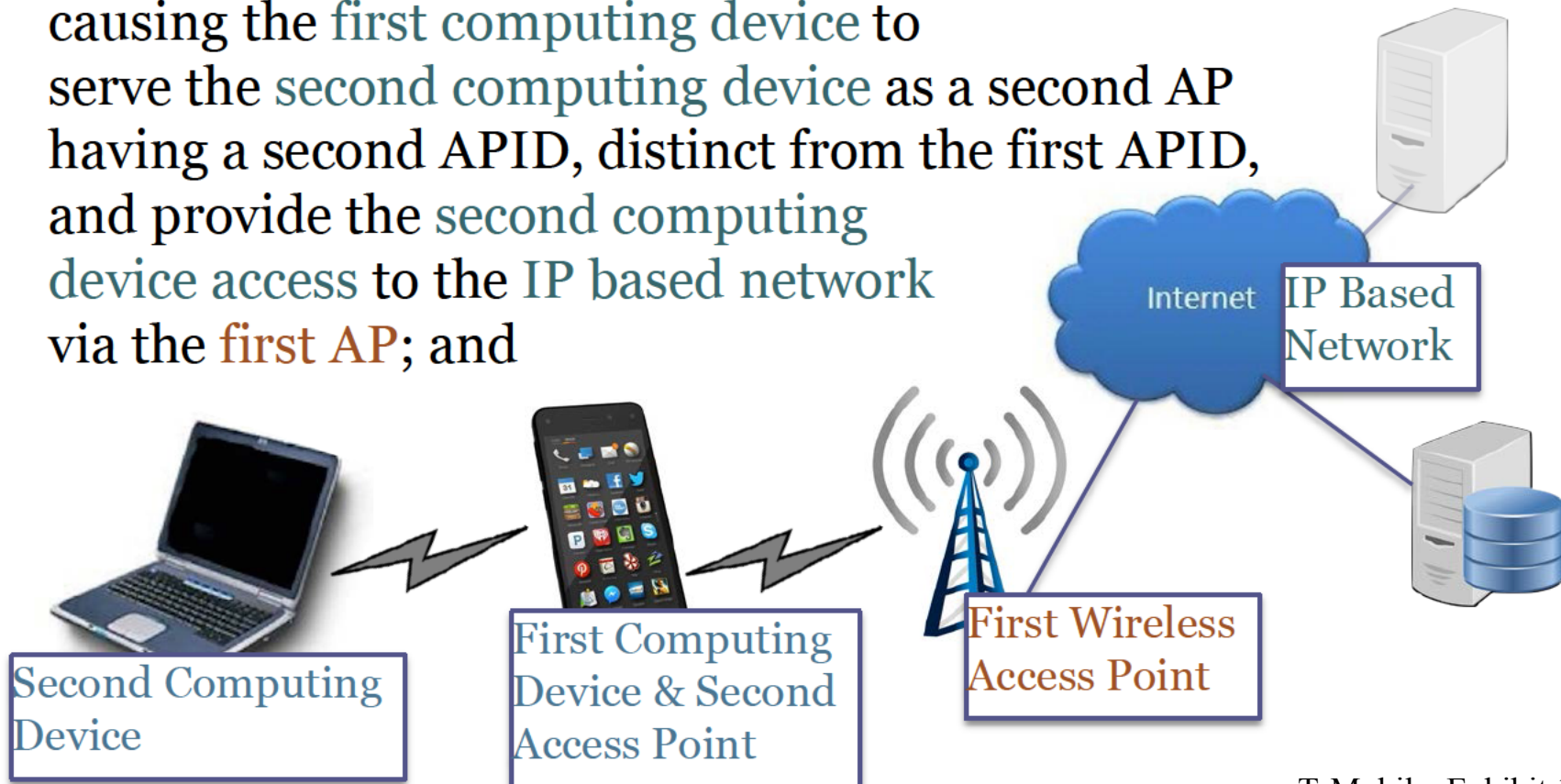
Claim 16 - Web Access

enable a user of the first computing device to interact, through the user interface, with destinations over the IP based network, through the first wireless AP, using a first public IP address associated with the first computing device;



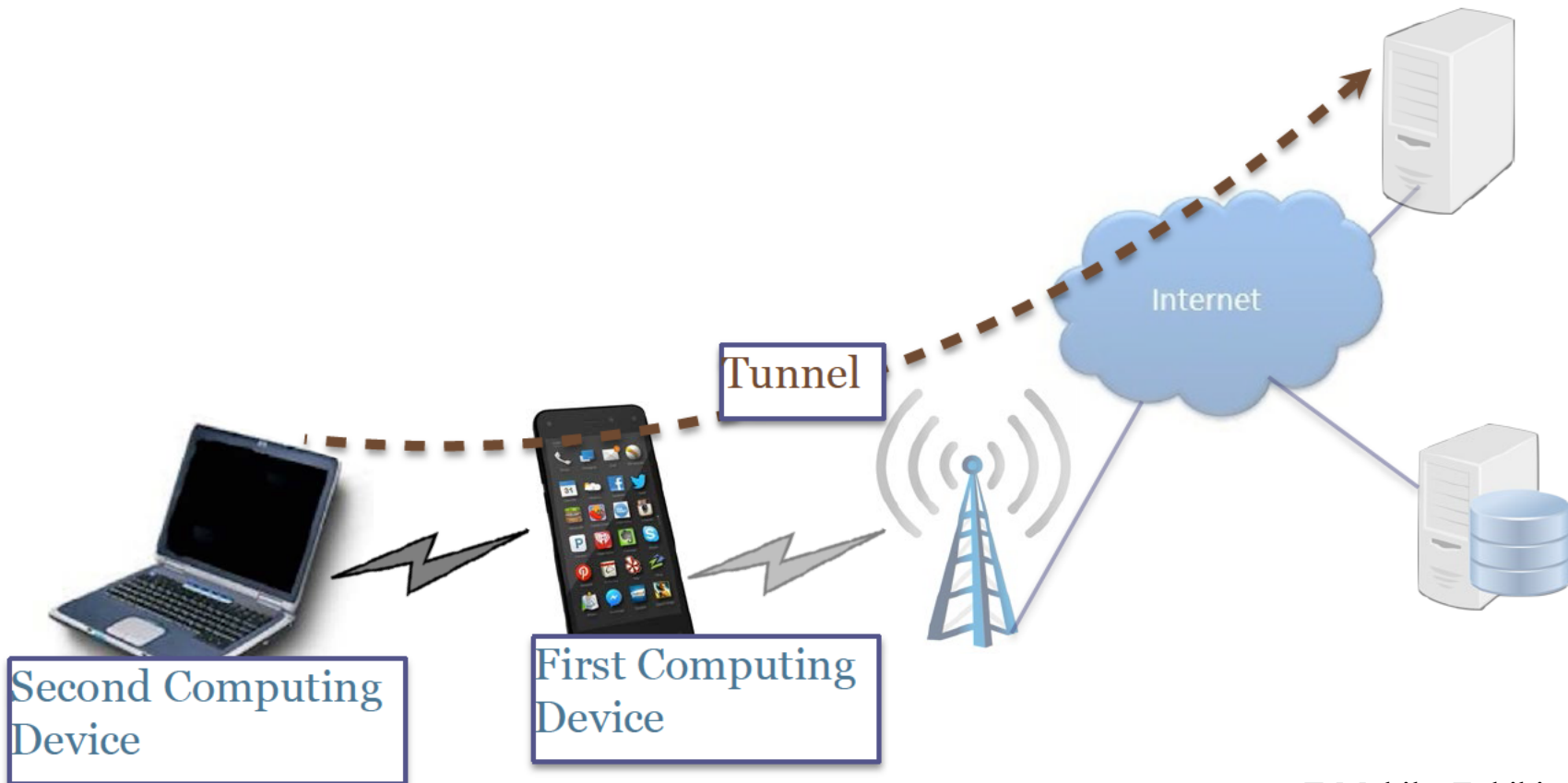
Claim 16 - Tethering Connection

provide a second computing device of the other wireless enabled computing devices with access to the IP based network by causing the first computing device to serve the second computing device as a second AP having a second APID, distinct from the first APID, and provide the second computing device access to the IP based network via the **first AP**; and



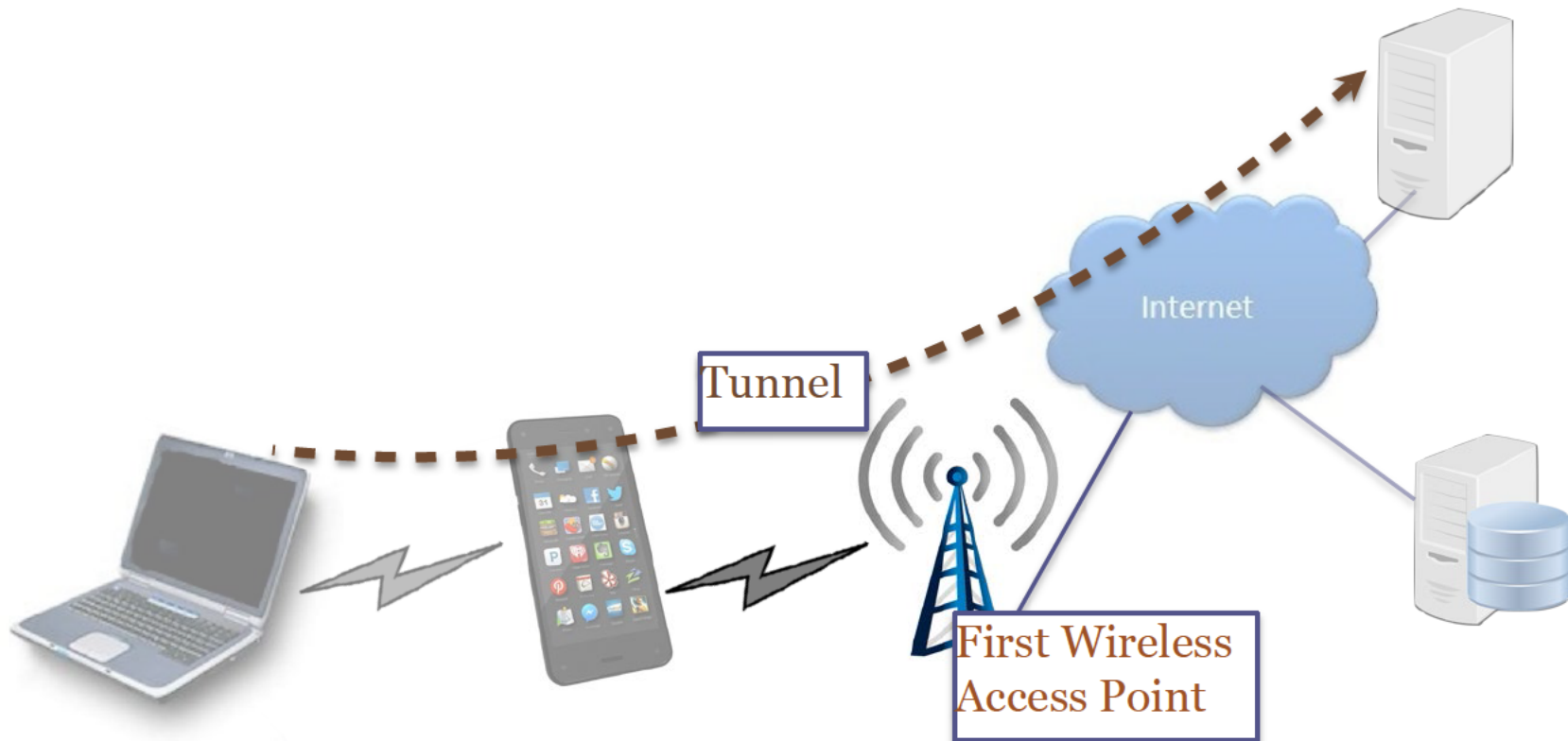
Claim 16 - Tunneling (continued)

tunnel data traffic from the second computing device, through the first computing device, ...



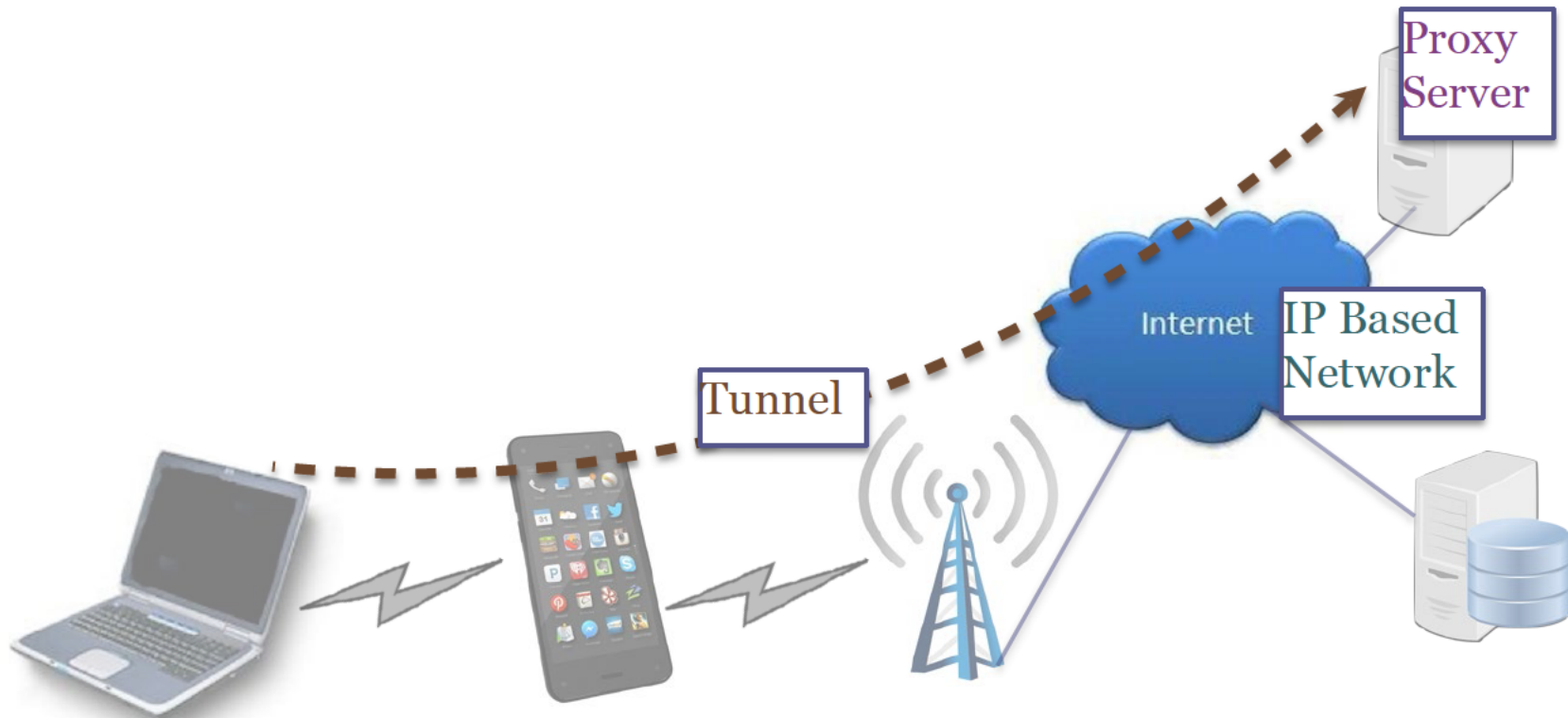
Claim 16 - Tunneling (continued)

through the **first AP** [access point],



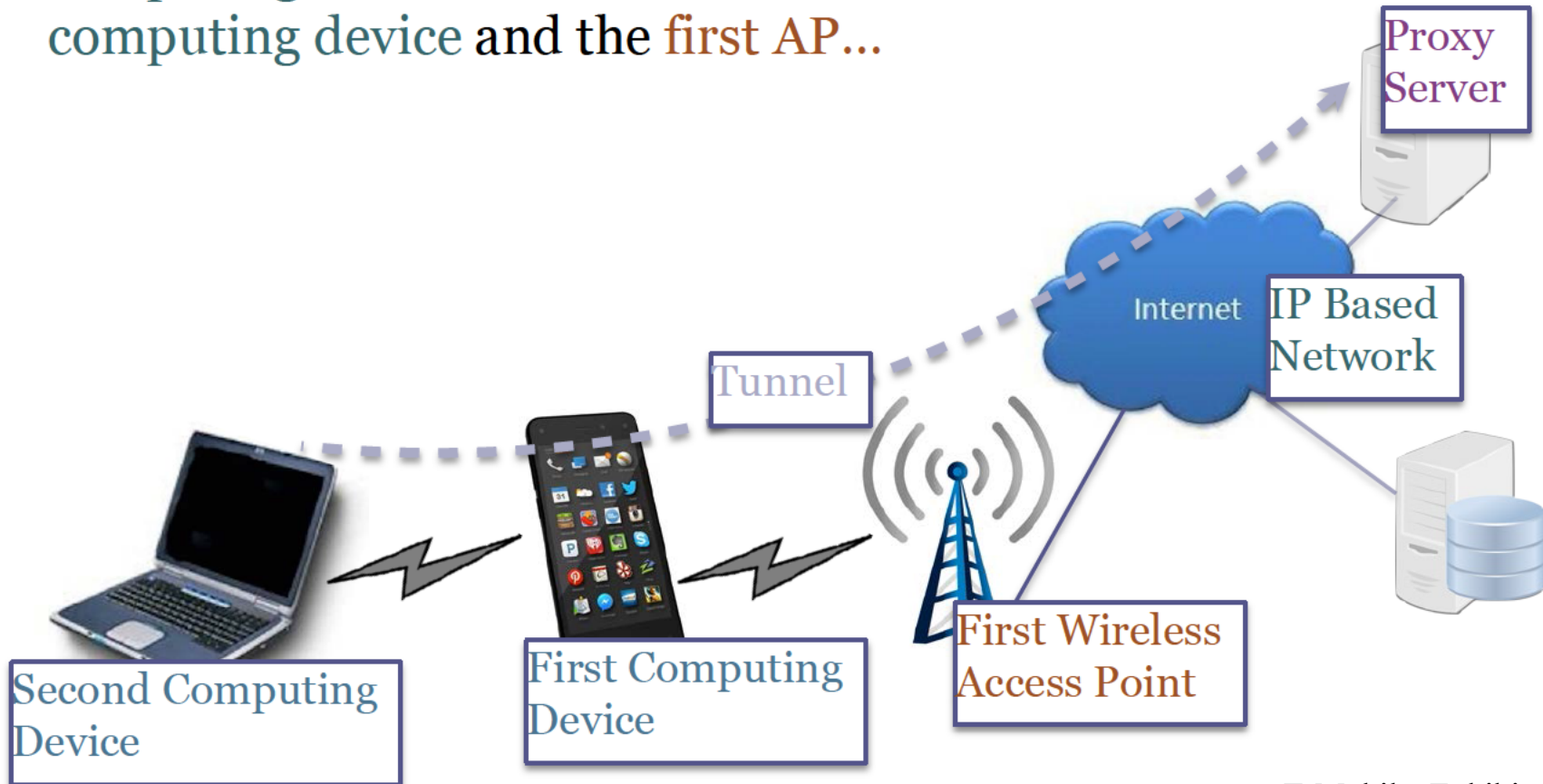
Claim 16 - Tunneling (continued)

through the IP network, to the proxy server,



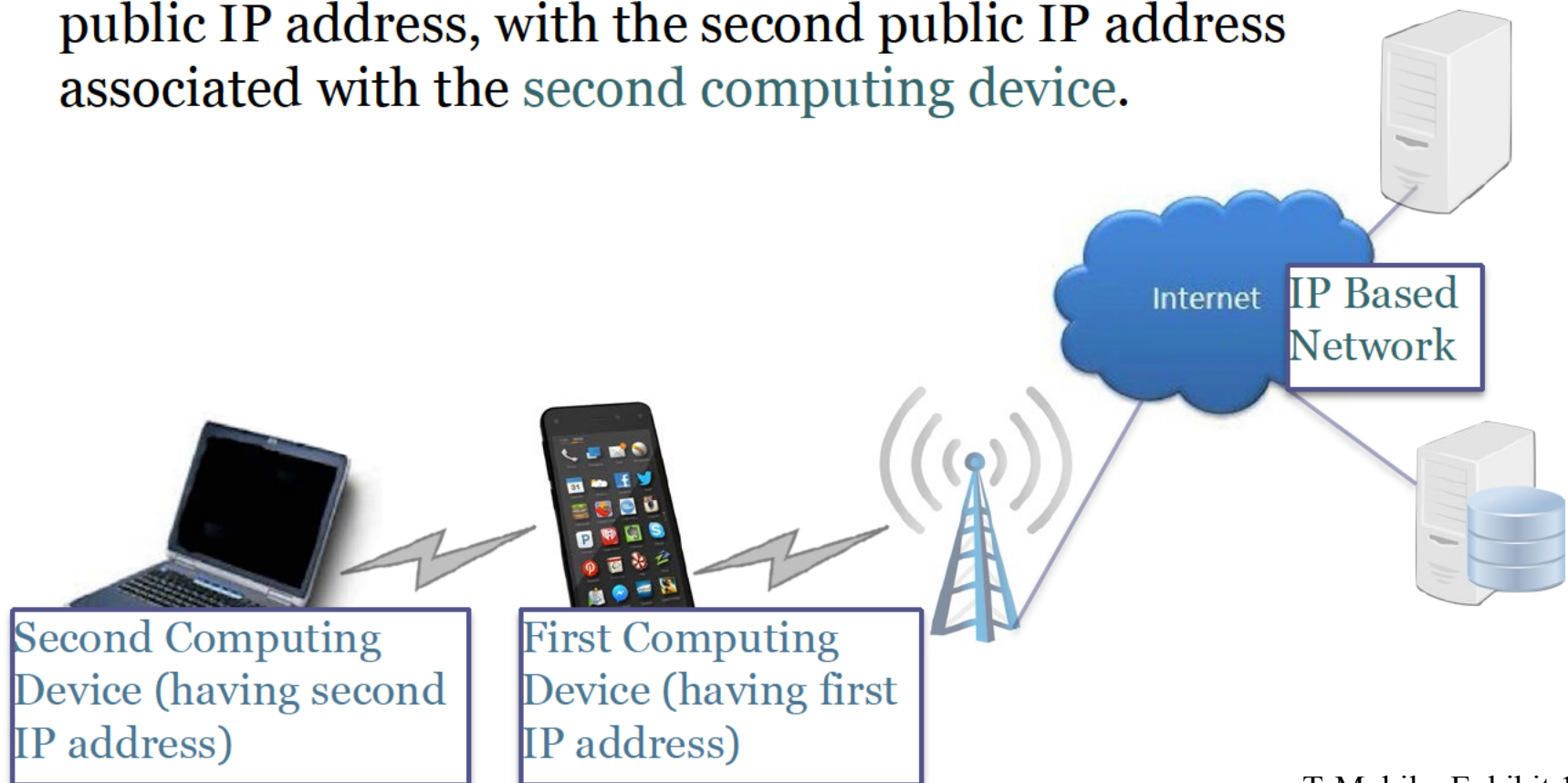
Claim 16 - Proxy Service

wherein the **proxy server** acts as a proxy of the second computing device and the data traffic is secure from the first computing device and the **first AP**...



Claim 16 - Different IP Addresses

and the second computing device operates on the IP based network using a second public IP address distinct from the first public IP address, with the second public IP address associated with the second computing device.



The End