IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

BECK BRANCH LLC, Plaintiff, **v.** **SAMSUNG ELECTRONICS AMERICA, INC.,** Defendant.	**CIVIL ACTION NO 6:18-cv-312** **JURY TRIAL DEMANDED**

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

1. This is an action for patent infringement in which Beck Branch LLC makes the following allegations against Samsung Electronics America, Inc.

PARTIES

2. Plaintiff Beck Branch LLC ("Plaintiff") is a Texas limited liability company with its principal place of business at 101 E. Park Blvd, Suite 600, Plano, TX 75074.

3. On information and belief, Samsung Electronics America, Inc. ("Defendant" or "Samsung") is a corporation organized and existing under the laws of the State of New York, with its principal place of business in 85 Challenger Rd, 6th Floor, Ridgefield Park, NJ 07660.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). On information and belief, acts of infringement have been committed in this District. Additionally, Cisco has a regular and established place of business in this District, including, without limitation, its Richardson location at 1301 E. Lookout Dr, Richardson, TX 75082.

6. On information and belief, Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 6,873,620

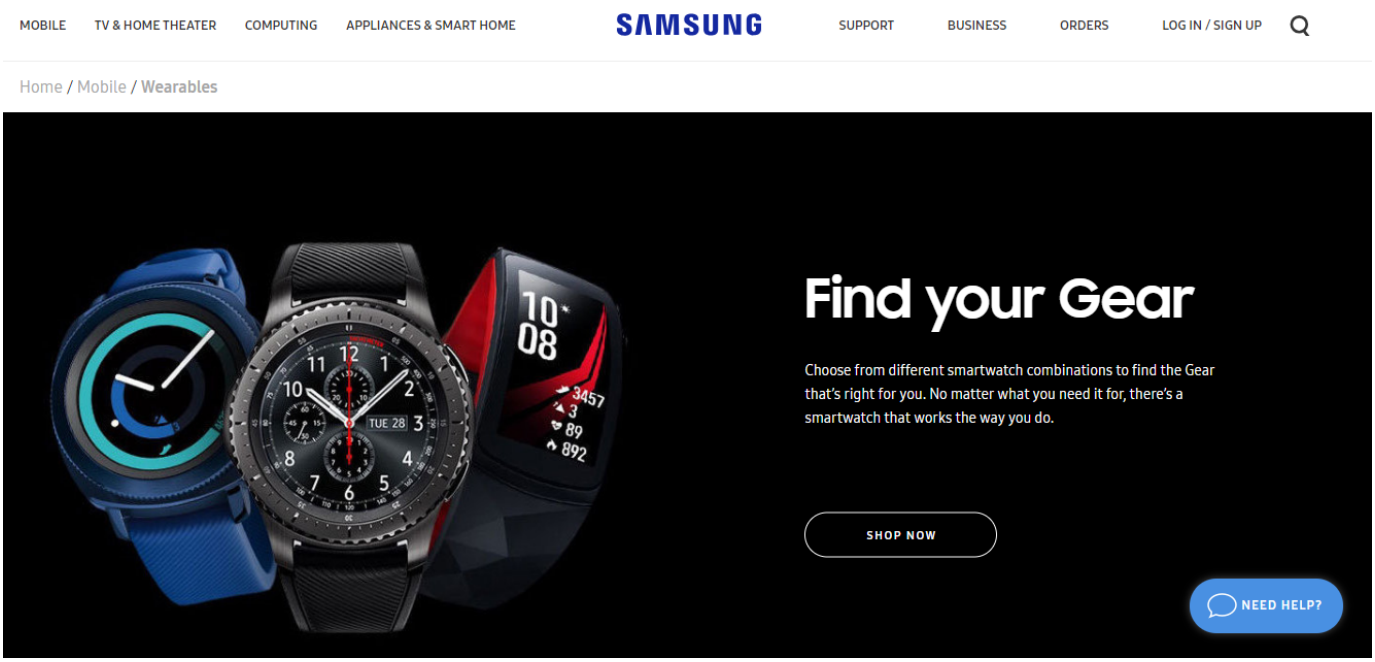
7. Plaintiff is the owner of United States Patent No. 6,873,620 ("the '620 patent") entitled "Communication Server Including Virtual Gateway to Perform Protocol Conversion and Communication System Incorporating the Same." The '620 Patent issued on March 29, 2005. A true and correct copy of the '620 Patent is attached as Exhibit A.

8. Defendant owns, uses, operates, advertises, controls, sells, and otherwise provides products and/or services that infringe the '620 patent. The '620 patent provides, among other things, " A communication server acting as a gateway for the transmission of messages between two virtual devices communicating with networks implementing different protocols, said communication server comprising: a knowledge base comprising a registry identifying each physical device registered to deliver messages for transmission between said virtual devices and through said gateway, a logical table identifying each registered connection available between physical devices and protocol conversion information required for each registered connection to convert messages of one protocol to a different protocol and a dynamic database identifying the current status of each actual connection between physical devices; and a virtual gateway accessing said knowledge base for protocol conversion information upon receipt of a message to be transmitted between said virtual devices and converting the protocol of said message to a protocol compatible with the network to which said message is being sent wherein said virtual gateway updates the protocol conversion information and the current status information in said knowledge base based on message traffic therethrough."

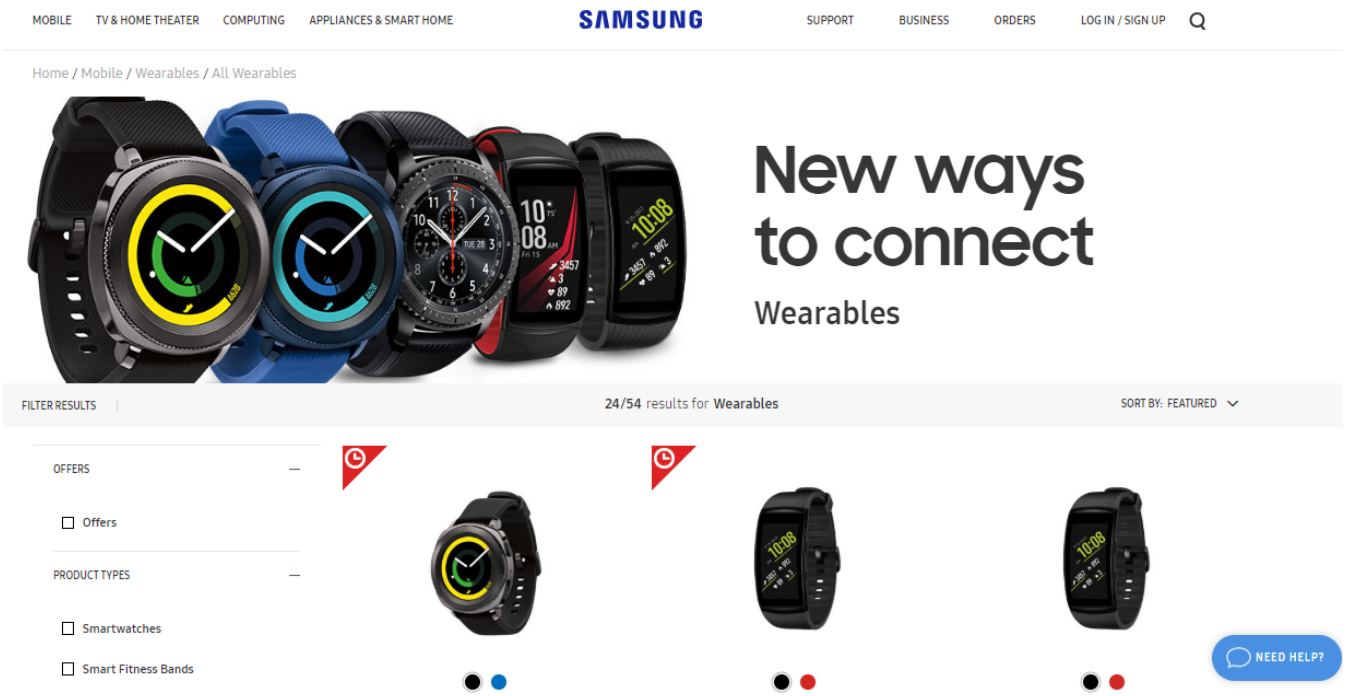
9. Defendant directly and/or through intermediaries, made, has made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or services that infringed one or more claims of the '620 patent, including at least Claim 23, in this district

and elsewhere in the United States. By making, using, importing, offering for sale, and/or selling such products and services, and all like products and services, Defendant has injured Plaintiff and is thus liable for infringement of the '620 patent pursuant to 35 U.S.C. § 271.

10. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a communication server acting as a gateway for the transmission of messages between two virtual devices communicating with networks implementing different protocols. For example, Samsung provides wearables such as Samsung Smartwatches and Smart Fitness Bands which use Samsung Gear and/or Samsung Health smartphone application as a gateway for transmission of messages between the Samsung Smartwatches and Smart Fitness Bands and other devices (such as servers, computers, smartphones and/or other devices). When data is sent from Samsung's wearable devices such as smartwatches and/or fitness bands using Samsung Gear and/or Samsung Health smartphone application (which when installed on a smartphone comprise one or more "virtual devices"), the wearable sends the data via the Samsung Gear and/or Samsung Health smartphone application ("communication server"). The smartphone application converts the protocol used for communicating between the Bluetooth connected wearables via the smartphone and a server (including but not limited to a Samsung server) connected via the internet. Further, when a message and/or call is placed using Samsung's smartwatch to another smartphone and/or smart watches, the Samsung's smartwatch send the message and/or call via the Samsung Gear smartphone application working on different protocols.



Source: https://www.samsung.com/us/mobile/wearables/

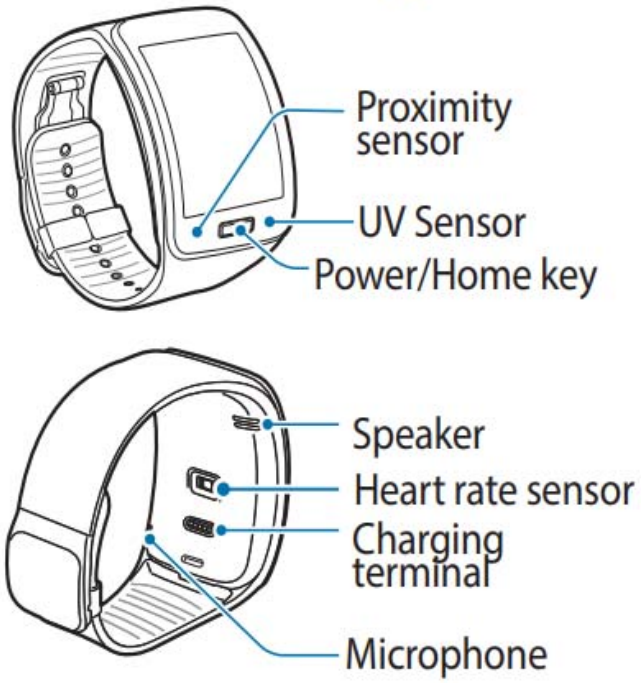


Source: https://www.samsung.com/us/mobile/wearables/all-wearables/s/_/n-10+11+hv1rr/

Optional Accessories

- You can purchase additional accessories from your local Samsung retailer. Make sure they are compatible with the Gear S before purchase.
- Some accessories, such as docking devices, may not have the same water- and dust-resistance certification.
- Use only Samsung-approved accessories. Using unapproved accessories may cause the performance problems and malfunctions that are not covered by the warranty.
- Availability of all accessories is subject to change depending entirely on manufacturing companies. For more information about available accessories, refer to the Samsung website.

Device Layout



Source:
http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 6

When the devices are connected, the Gear S displays the Clock screen and a tutorial, and the Samsung Gear Manager app launches on the smartphone.

Signing in to Your Samsung Account

During the pairing process, the smartphone will prompt you to sign in to your Samsung account. Signing in to your Samsung account allows the Gear S and the smartphone to remain connected remotely when they are not connected via Bluetooth.

The remote connection allows the Gear S to receive notifications and calls from your smartphone, even when they are not within Bluetooth range.

Source:
http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 17

Samsung Health Server SDK

Health data access is an essential feature to provide health services. *Samsung Health* released the Samsung Health Android SDK already. It helps that partner apps connect with *Samsung Health* installed in Android smartphone and access the user's health data saved in the local device. See Samsung Health Android SDK for more information.

To expand service environments more, *Samsung Health* defines Samsung Health Server SDK that provides REST APIs. It enables service providers to access health data in Samsung Health Server. Service providers can create advanced health services though Samsung Health Server SDK without a limitation of an Android environment.

The user's health data are saved in Samsung Health Server after using a sync option in Samsung Health > Settings > Samsung account as the following figure.

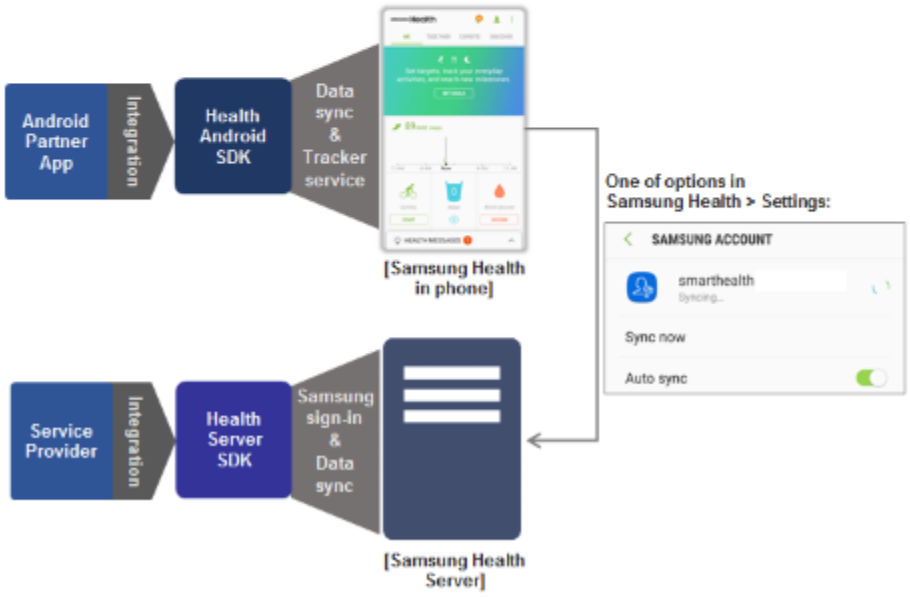


Figure: Samsung Health's Android and Server SDK

Source: https://developer.samsung.com/health/server

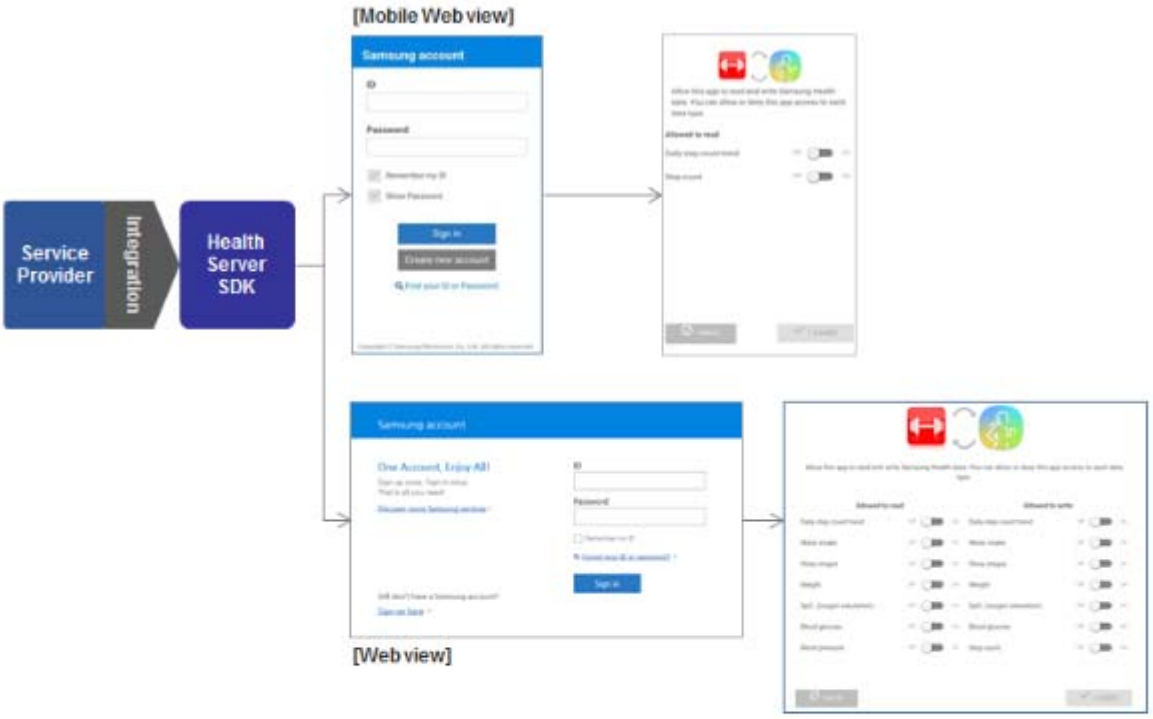


Figure: User flow

The user's flow is drawn in a figure above.

1) The health service is started. Data access is required.
2) Samsung account sign-in is popped up. The user enters his/her ID and pw.
3) Sign-in successes. A pup-up is shown for data permission. The user agrees all data.
4) You can access the server's health data.

Source: https://developer.samsung.com/health/server

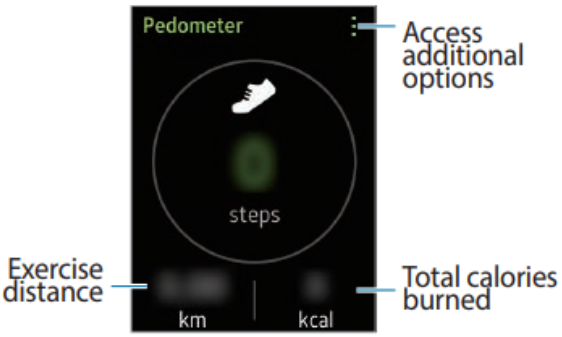
Setting up a User Profile

1. On the Apps screen, tap **S Health**.
2. Read the information about using this app and tap **OK**.
3. Follow the on-screen instructions to select your gender, and enter your birth date, physical statistics, and choose other options.

Pedometer

The Pedometer feature counts the number of steps you have taken and measures the distance travelled. It also calculates the calories you have used.

1. On the Apps screen, tap **S Health** > **Pedometer**.
2. When you use this feature for the first time, read the information about the health pace feature and inactive time alert, scroll upwards, and then select an option.
3. To stop measuring, tap ⋮ > **Pause**.



Using the Healthy Pace Feature

If you walk more than 10 minutes a day, the Gear S displays the healthy pace icon.

► On the Pedometer main screen, tap ⋮ > **Healthy pace** and tick **Healthy pace**.

Source:
http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 65

Samsung Gear App

Samsung Gear

The Samsung Gear app allows you to connect to a smartphone and customize your Gear's settings and apps.

► On the apps screen of the smartphone, tap **Samsung Gear**.

Connecting a New Gear

You can disconnect the currently used Gear from the smartphone and connect a new Gear to the device.

► On the Apps screen of the smartphone, tap **Samsung Gear** > ⋮ > **Search for new devices**, and then select a device.

Connection Modes and Samsung Gear

Connected via Bluetooth

In Bluetooth connection mode, the Gear S is paired with the smartphone via Bluetooth.

While in Bluetooth connection mode, the Gear S will receive notifications and calls from the connected smartphone, calls and SMS messages to the Gear S phone number, and you can use all of the Gear S and Samsung Gear app functions.

Note: Most Samsung Gear app features require that the Gear S be connected to the smartphone via Bluetooth.

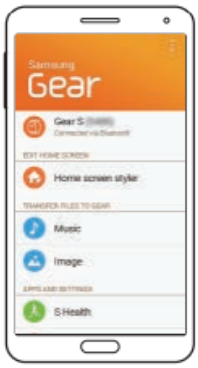
Source: http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 101

Bluetooth	Bluetooth is a wireless communication link, operating in the unlicensed ISM band at 2.4 GHz using a frequency hopping transceiver. It allows real-time AV and data communications between Bluetooth Hosts. The link protocol is based on time slots.
Bluetooth Baseband	The part of the Bluetooth system that specifies or implements the medium access and physical layer procedures to support the exchange of real-time voice, data information streams, and ad hoc networking between Bluetooth Devices.
Bluetooth Clock	A 28 bit clock internal to a BR/EDR Controller sub-system that ticks every 312.5µs. The value of this clock defines the slot numbering and timing in the various physical channels.
Bluetooth Controller	A generic term referring to a Primary Controller with or without a Secondary Controller.
Bluetooth Device	A device that is capable of short-range wireless communications using the Bluetooth system.

Source: https://www.bluetooth.org/DocMan/handlers/DownloadDoc.ashx?doc_id=282159, page 24

11. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a knowledge base comprising a registry identifying each physical device registered to deliver messages for transmission between said virtual devices and through said gateway. For example, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health to send and/or receive data between Samsung's smartwatch which is connected via Bluetooth with the smartphone and the Samsung sever which is connected to the smartphone via the internet. The Samsung Gear and/or Samsung Health application installed on the smartphone comprises a knowledge base registry to identify the registered physical devices. Further, the Samsung's smartwatch transmits data between smartwatch operating on the Bluetooth protocol and the Samsung server connected to the smartphone via the internet operating on Internet Protocol (IP) via the Samsung Gear and/or Samsung Health application. For example, Samsung's smartwatch sends a message and/or call using Samsung Gear application operating on the Bluetooth protocol to the another smartphone and/or smart watches over the internet and/or network services.

When the devices are connected, the Gear S displays the Clock screen and a tutorial, and the Samsung Gear Manager app launches on the smartphone.



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The remote connection allows the Gear S to receive notifications and calls from your smartphone, even when they are not within Bluetooth range.

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BLUETOOTH SPECIFICATION Version 4.1 [Vol 1] page 25 of 158

Architecture

Bluetooth®

Bluetooth Device Address	A 48 bit address used to identify each Bluetooth device.
BR/EDR	Bluetooth basic rate (BR) and enhanced data rate (EDR).
BR/EDR Controller	A term referring to the Bluetooth Radio, Baseband, Link Manager, and HCI layers.
BR/EDR Piconet Physical Channel	A Channel that is divided into time slots in which each slot is related to an RF hop frequency. Consecutive hops normally correspond to different RF hop frequencies and occur at a standard hop rate of 1600 hops/s. These consecutive hops follow a pseudo-random hopping sequence, hopping through a 79 RF channel set, or optionally fewer channels when Adaptive Frequency Hopping (AFH) is in use.
BR/EDR/LE	Bluetooth basic rate (BR), enhanced data rate (EDR) and low energy (LE)

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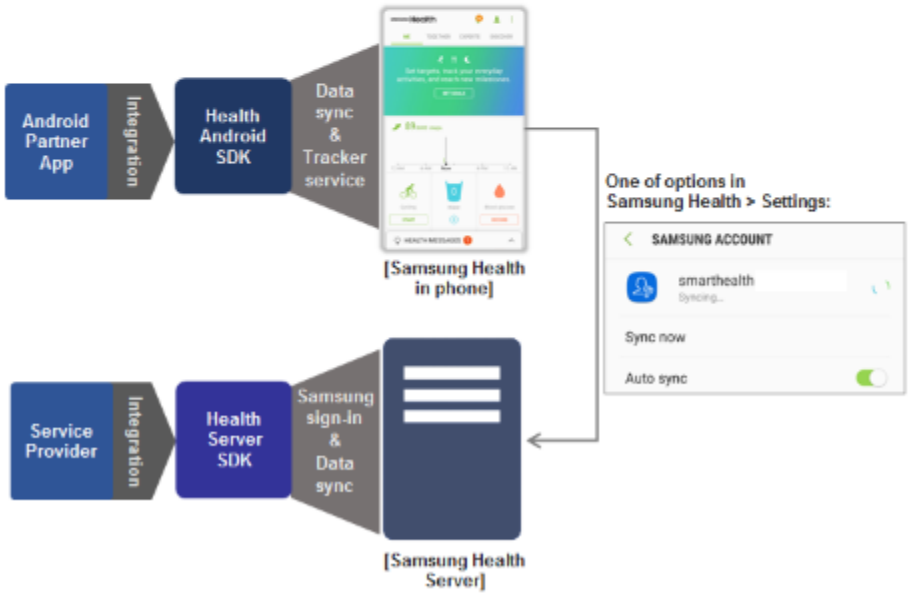
Samsung Health Server SDK

Health data access is an essential feature to provide health services. *Samsung Health* released the Samsung Health Android SDK already. It helps that partner apps connect with *Samsung Health* installed in Android smartphone and access the user's health data saved in the local device. See Samsung Health Android SDK for more information.

To expand service environments more, *Samsung Health* defines Samsung Health Server SDK that provides REST APIs. It enables service providers to access health data in Samsung Health Server. Service providers can create advanced health services though Samsung Health Server SDK without a limitation of an Android environment.

The user's health data are saved in Samsung Health Server after using a sync option in Samsung Health > Settings > Samsung account as the following figure.



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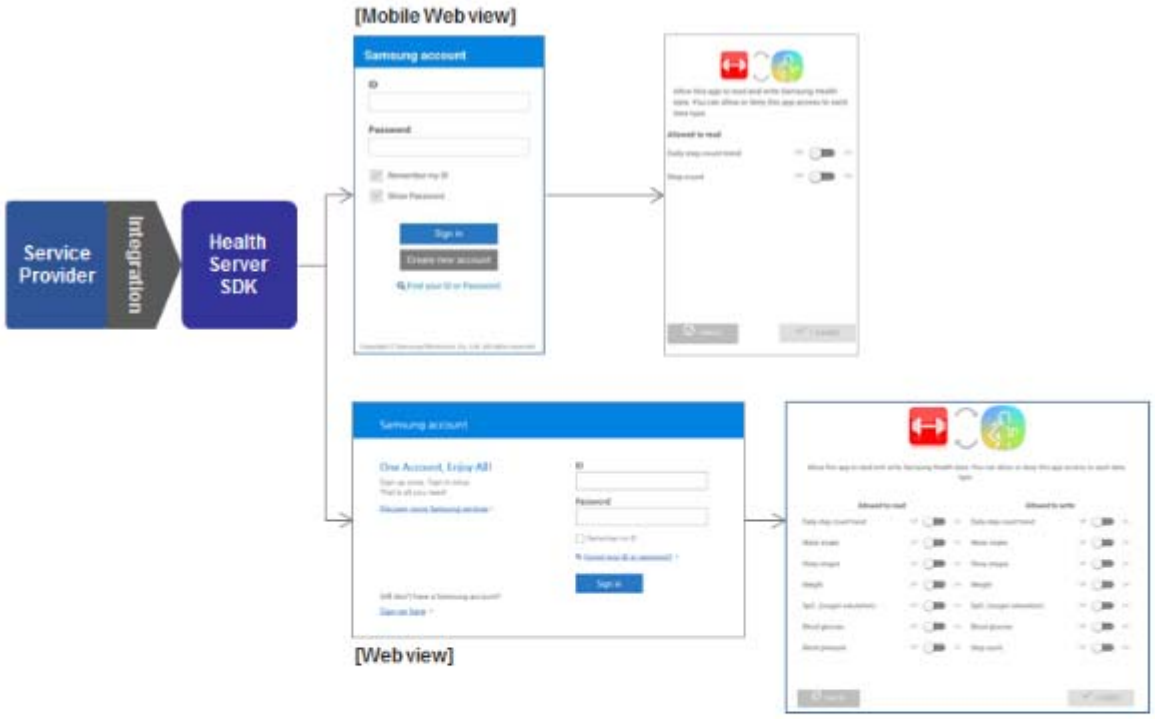

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The user's flow is drawn in a figure above.

1) The health service is started. Data access is required.
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4) You can access the server's health data.

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1. On the Apps screen, tap **S Health**.
2. Read the information about using this app and tap **OK**.
3. Follow the on-screen instructions to select your gender, and enter your birth date, physical statistics, and choose other options.

Pedometer

The Pedometer feature counts the number of steps you have taken and measures the distance travelled. It also calculates the calories you have used.

1. On the Apps screen, tap **S Health** > **Pedometer**.
2. When you use this feature for the first time, read the information about the health pace feature and inactive time alert, scroll upwards, and then select an option.
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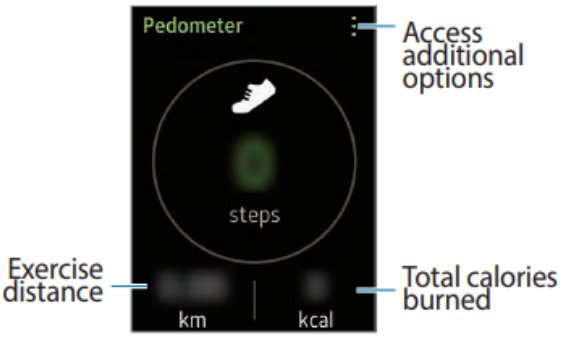

Using the Healthy Pace Feature

If you walk more than 10 minutes a day, the Gear S displays the healthy pace icon.

► On the Pedometer main screen, tap ⋮ > **Healthy pace** and tick **Healthy pace**.

Source:
http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 65

3.1 CORE TRAFFIC BEARERS

The Bluetooth core system provides a number of standard traffic bearers for the transport of service protocol and application data. These are shown in Figure 3.2 on page 40 below (for ease of representation this is shown with higher layers to the left and lower layers to the right).

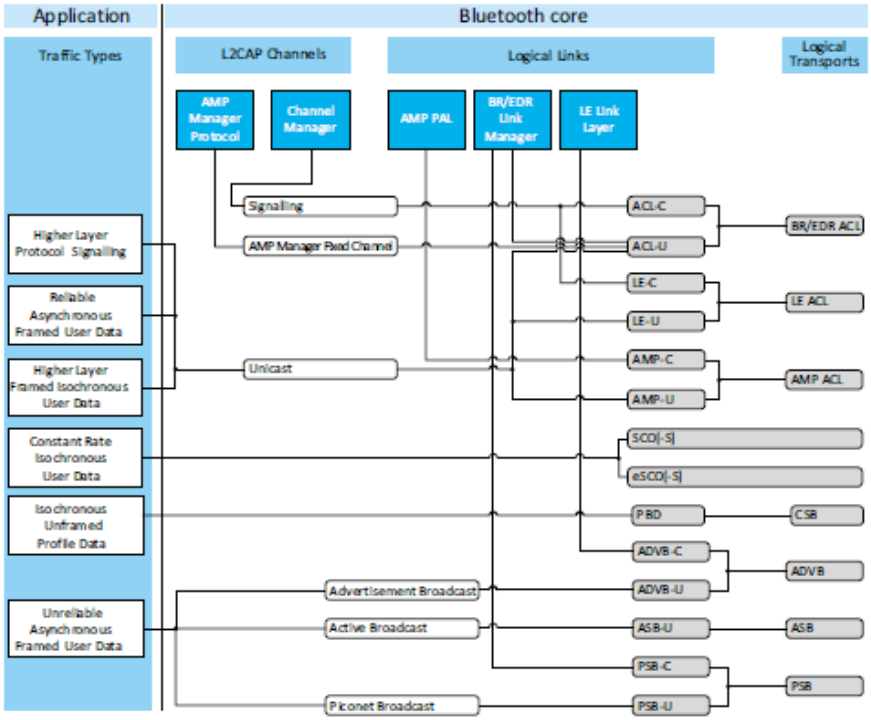

Figure 3.2: Bluetooth traffic bearers

Source: https://www.bluetooth.org/DocMan/handlers/DownloadDoc.ashx?doc_id=282159, page 40

Further, Samsung Gear and/or Samsung Health application also maintains a knowledge base comprising a registry identifying the phones and devices within the customers' network.

12. Based on information and belief, Samsung makes, uses, sells and/or offers for sale a logical table identifying each registered connection available between physical devices and protocol conversion information required for each registered connection to convert messages of one protocol to a different protocol. Upon information and belief, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health which comprises a logical table to identify the type of connection and selects Samsung Gear and/or Samsung Health application to convert data from Bluetooth protocol to IP and vice versa.

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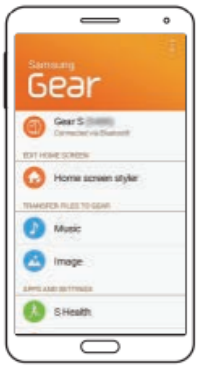

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Source: https://www.bluetooth.org/DocMan/handlers/DownloadDoc.ashx?doc_id=282159, page 24

Status Icons

Status icons appear at the top of the Moments screen.

You can also display status icons by double-tapping on the screen with two fingers.

Common icons are listed in the table below.

Icon	Status
	Bluetooth connected. The Gear S is connected to the smartphone via Bluetooth. For more information, refer to "Bluetooth Mode" on page 101.
	Bluetooth disconnected. Bluetooth is on, but the Gear S is not connected to the smartphone via Bluetooth.
	Bluetooth headset. The Gear S is connected to a Bluetooth headset.
	No service. Mobile network coverage is not available. With no mobile network coverage, Gear S cannot use Gear only mode.
3G	3G service. The Gear S is connected to the mobile network, and 3G coverage is available.
	Signal strength. Coverage for mobile network service.
	Wi-Fi connected. The Gear S is connected to a Wi-Fi network.
	Location service in use. The location setting is enabled, and the Gear S is communicating with GPS to determine location.
	Mute mode enabled. The Gear S will not play any sounds or vibration for notifications.

Source:
http://s7.vzw.com/is/content/VerizonWireless/Devices/Samsung/Gear%20S/UserGuides/smartdevice-samsung-gear-s-um.pdf, page 33

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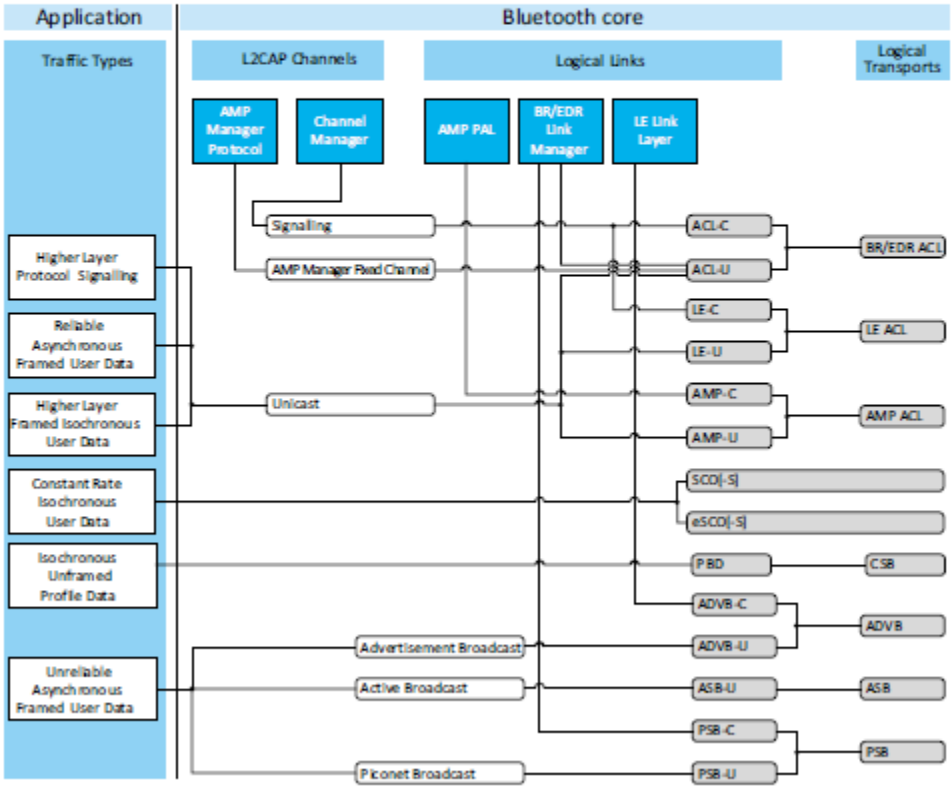

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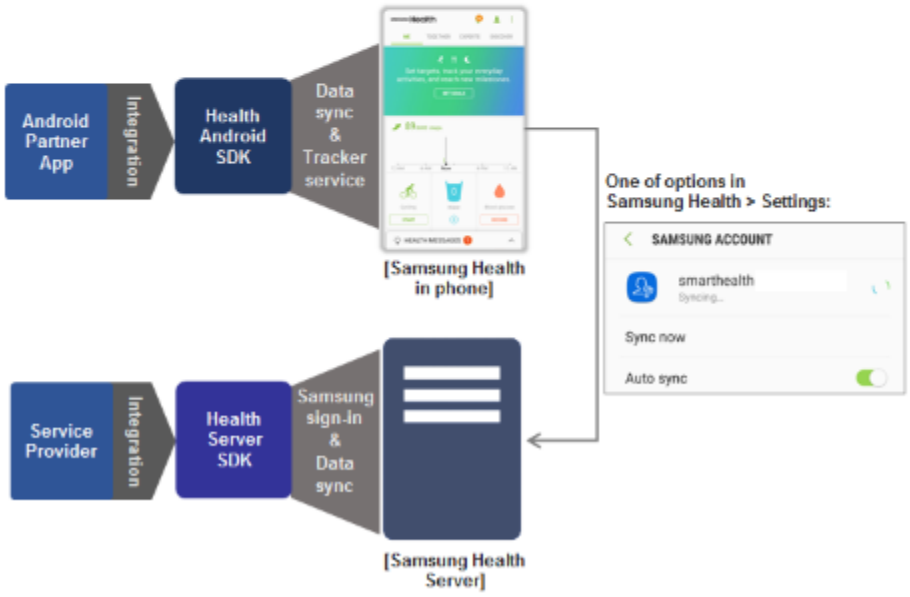

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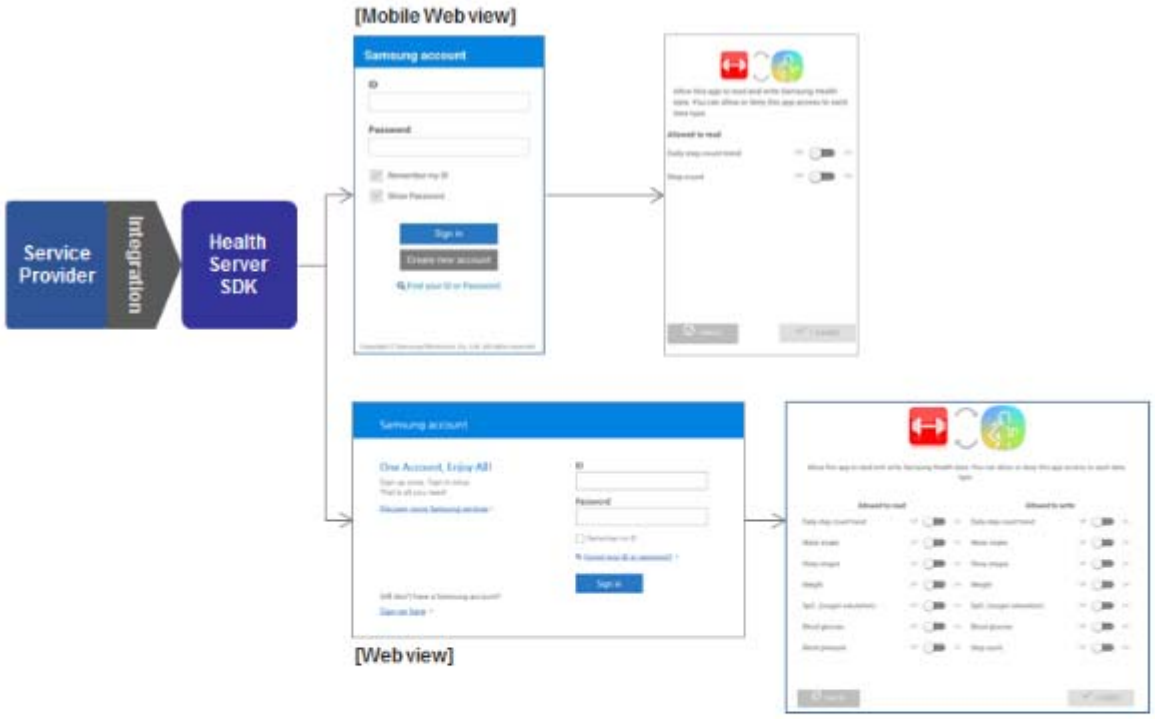

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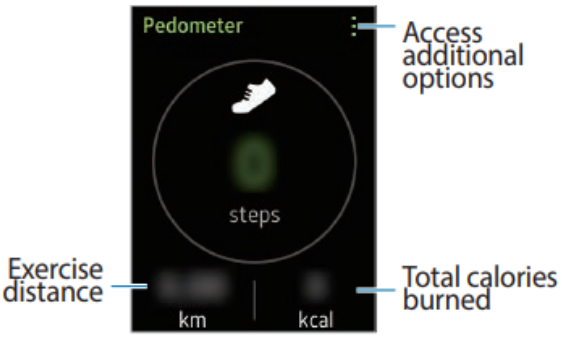

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13. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a dynamic database identifying the current status of each actual connection between physical devices. For example, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health which comprises a dynamic database to identify the current status of connection between the physical devices (including Smartwatches and the Fitness Bands).

14. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a virtual gateway accessing said knowledge base for protocol conversion information upon receipt of a message to be transmitted between said virtual devices. For example, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health comprising a virtual gateway which uses the Samsung Gear and/or Samsung Health application as a gateway for protocol conversion upon receiving the data to be transmitted between Samsung's smartwatch which is connected via Bluetooth with the smartphone and the another smartphone and/or smart watches

over the internet and/or network services, Samsung sever which is connected to the smartphone via the internet.

15. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a virtual gateway converting the protocol of said message to a protocol compatible with the network to which said message is being sent. For example, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health comprising a gateway which converts the protocol of the data sent from Samsung's smartwatch which is connected via the Bluetooth with the smartphone to the another smartphone and/or smart watches over the internet and/or network services, Samsung sever which is connected to the smartphone via the internet working on internet protocol.

16. Based on present information and belief, Samsung makes, uses, sells and/or offers for sale a virtual gateway wherein said virtual gateway updates the protocol conversion information and the current status information in said knowledge base based on message traffic there through. Upon information and belief, Samsung and/or its customers utilize Samsung Gear and/or Samsung Health which accesses and updates the information stored in the registry based on the communicating virtual devices via the virtual gateway.

17. In the alternative, because the manner of use by Defendant differs in no substantial way from language of the claims, if Defendant is not found to literally infringe, Defendant infringes under the doctrine of equivalents.

18. Defendant's aforesaid activities have been without authority and/or license from Plaintiff.

19. In addition to what is required for pleadings in patent cases, and to the extent any marking was required by 35 U.S.C. § 287, Plaintiff and all predecessors in interest to the '620 Patent complied with all marking requirements under 35 U.S.C. § 287.

20. Plaintiff is entitled to recover from Defendant the damages sustained by Plaintiff as a result of the Defendant's wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

1. A judgment in favor of Plaintiff that Defendant has infringed the '620 Patent;

2. A judgment and order requiring Defendant to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for Defendant's infringement of the '620 Patent as provided under 35 U.S.C. § 284;

3. An award to Plaintiff for enhanced damages resulting from the knowing, deliberate, and willful nature of Defendant's prohibited conduct with notice being made at least as early as the date of the filing of this Complaint, as provided under 35 U.S.C. § 284;

4. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees; and

5. Any and all other relief to which Plaintiff may show itself to be entitled.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Respectfully Submitted,

BECK BRANCH LLC

Dated: June 27, 2018

By: */s/ Papool S. Chaudhari*

Papool S. Chaudhari
Texas State Bar No. 24076978
Chaudhari Law, PLLC
P.O. Box 1863
Wylie, Texas 75098
Phone: (214) 702-1150
Fax: (214) 705-3775
Papool@ChaudhariLaw.com

ATTORNEY FOR PLAINTIFF
BECK BRANCH LLC