



CISCO SYSTEMS, INC. Petitioner,  
V.  
ZILKR CLOUD TECHNOLOGIES, LLC, Patent Owner

Case No. IPR2023-00553  
U.S. Patent No. 9,210,254

Theo Foster  
Haynes and Boone, LLP

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# '254 Patent – Claim 1

1. A telephone system comprising:  
a database; and  
a server coupled to the database, wherein the server is utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service, and wherein the telephone service is associated with a first telephone number;  
wherein the server is configured to:  
receive a request to provision a second service for the first user, wherein the second service is provided by a second provider, and wherein the second provider is different than the first provider;  
responsive to receiving the request:  
create a mapping from the first telephone number to a second identifier (ID), wherein the second ID is utilized by the second provider to identify the first user;  
activate the second service with the second provider utilizing the second ID as a user ID for the first user;  
and  
associate the second service with the first telephone number, wherein the first telephone number is associated with routing and interworking data necessary to utilize the second service.

# Key Points

- Claim Construction
- Ground 1
  - Obvious for a “*first provider*” to “*utilize*” Bodart’s server to provide a “*telephony service*”
  - Configuring Bodart’s server is a “*request to provision a second service*”
  - Logging into email or IM server serves to “*activate the second service*”
  - Creating rules in Bodart’s server acts to “*associate the second service with the first telephone number*”
- Ground 2
  - de Castro provides a “*telephone service... associated with the first telephone number*”
  - Petition consistently identified “client 40” as “*the first user*”
  - de Castro shows “*mapping*” caller and called phone numbers to Jabber IDs

# “request to provision” & “activate”

Zilkr identifies only “permissive” disclosures in the specification

*“[I]t is . . . not enough that the only embodiments, or all of the embodiments, contain a particular limitation to limit a claim term beyond its ordinary meaning.”*

*Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1330 (Fed. Cir. 2012) (internal quotations omitted).

## Patent Owner Response

In the '254 Patent, “[c]lient 110 **may** subscribe to a standard telephone service provided by provider 120, and the telephone service **may** be associated with telephone number 105.” *Id.*, 3:35-37. In one embodiment, the telephone service provider **may** “present a storefront to the user to allow the user to *select and add new services and applications to their existing service.*” *Id.*, 6:49-52 (emphasis added). The user **may** select applications via the storefront hosted by the provider, “and then the selected applications **may** be *activated via the unified services platform 404.*” *Id.*, 6:52-55 (emphasis added). “When the *user selects a new application to add to their existing voice service*, a request **may** be generated via sourcing and settlement API 408 to *activate the new application* and associate the new application with the user’s telephone number.” *Id.*, 6:58-62 (emphasis added). “Unified services platform 404 **may** then generate the necessary configuration data to *activate the new application* in accordance with the specific API 410 utilized by the application *service provider responsible for delivering the new application.*” *Id.*, 6:62-66 (emphasis added). The description in the '254 Patent consistently refers

# *“request to provision” & “activate”*

*We agree with the Board, which wrote:*

***[T]his language [of the specification] clearly is permissive, not mandatory.*** *At most, this sentence [which the Court has reproduced above] explains that the cellular telecommunication system can be a UMTS system or GSM system; not that the cellular telecommunication system must be a UMTS system or GSM system.*

*Sisvel Int’l S.A. v. Sierra Wireless, Inc.*, 81 F.4th 1231 (Fed. Cir. 2023) (bold emphasis added).

# “request to provision” & “activate”

1. A telephone system comprising:  
a database; and  
a server coupled to the database, wherein the server is utilized by a first provider to provide a first service to a first user, wherein the first service is telephone service, and wherein the telephone service is associated with a first telephone number;  
wherein the server is configured to:  
receive a request **to provision a second service** for the first user, wherein the second service is provided by a second provider, and wherein the second provider is different than the first provider;

\* \* \*

4. The telephone system as recited in claim 3, wherein the **unified storefront enables the first user to subscribe to one or more new services** and to associate the one or more new services with the first telephone number.

Ex.1001, Claims 1 & 4 (discussed in Petitioner Reply at 8).

*“[W]here the limitation that is sought to be ‘read into’ an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.”*

*Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

# *“utilized by”*

## Patent Owner Sur-Reply

In the '254 Patent, the term “utilized” is consistently used in the sense of knowing and intentional use, which is closer to Webster’s definition “to make use of” (*see* Exhibit 1037 relied on by Petitioner) than it is to Petitioner’s proffered construction of “used by.” As just a few examples, the patent describes “applications

Patent Owner Sur-Reply at 14.

*“[I]t is . . . not enough that the only embodiments, or all of the embodiments, contain a particular limitation to limit a claim term beyond its ordinary meaning.”*

*Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1330 (Fed. Cir. 2012) (internal quotations omitted).

# “associated with”

## Patent Owner Response

For example, the '254 Patent describes that “[a] telecommunications provider which provides traditional telephone services to customers may be coupled to the unified services enabler platform in order to associate customer telephone numbers with various IP-enabled services and applications.” *See* Ex. 1001, 1:48-53. The '254 Patent’s language here indicates affirmatively establishing an ongoing association, not merely use of a caller’s number in messages relating to the call. Similarly, the

Patent Owner Response at 54.

In another passage demonstrating consistent use of “associate” to require an established link, the '254 Patent provides:

Unified services enabler platform 140 may be configured to unify all of the available services and applications in a single platform that is *associated with a single ID* to identify client 110. Rather than using an identifier such as an email address or a completely separate identifier, unified services enabler platform 140 *may associate the various services and applications provided to client 110 with telephone number 105.*

Ex. 1001, 4:15-22 (emphasis added).

Patent Owner Response at 55.

# Key Points

- Claim Construction
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# Bodart's server "*utilized*" by a "*first provider*"

## Houh Declaration

**100.** By providing the ability to receive, route, and initiate calls, the virtual assistant is "*utilized*" to provide "*telephone service to the first user.*"

**101.** Further, it would have been obvious to a POSITA that the telephone service would be provided by a telephone service provider ("*first provider*"). Fig.1

Ex.1005, ¶100-101 (cited in Petition at 31; Petitioner Reply at 14-15).

# Telephone service providers knew to “*utilize*” a server (like Bodart’s) to provide telephone services

## Tertiary Evidence – Buford

[0039] **Server 130 is a node** in the communication network of the telephone service provider of terminal 110. In the illustrative embodiment of the present invention server 130 operates as a SIP proxy and is used in establishing the communication session between terminal 110 and terminal 150. In addition, **server 130 is capable of providing one or more call-related services, such as call-blocking.** Server 130 and terminal 110 communicate via a signaling path.

Ex.1035, [0039] (cited in Petitioner Reply at 13; discussed further in Supplemental Houh Declaration, Ex.1030, ¶¶ 19–20).

# Telephone service providers knew to “*utilize*” a server (like Bodart’s) to provide telephone services

## Tertiary Evidence – Chemin

All calls addressed to a subscriber are forwarded by the subscriber’s routing autonomy exchange to a service server connected to the exchange. If a service provided by the service server necessitates a call to the subscriber, a call from the service server is routed to a virtual subscriber terminal which is connected to the exchange. All calls which are addressed to the virtual subscriber terminal, are forwarded to the subscriber by the exchange or the virtual subscriber terminal. The service server can therefore offer the subscriber a plurality of new services.

Call forwarding on busy: any call from any calling

\* \* \*

Call forwarding on no reply: any call from any calling

\* \* \*

Call filtering: the subscriber TB requires not to be offered

\* \* \*

Selective call forwarding: calls to the subscriber TB from

\* \* \*

with a screen. Furthermore, the services offered are remotely programmable by subscribers so that the latter can manage diaries, i.e. program dates and times at which they envisage using these services.

Ex.1036, Abstract, 6:9-12, 6:32-35, 6:57-61, 7:9-14, 8:19-20 (cited in Petitioner’s Reply at 13; discussed further in Supplemental Houh Declaration, Ex.1003, ¶21-22).

*“a request to provision a second service”*

Petitioner Reply

While it would have been obvious to store this information, PO incorrectly views the act of storing credentials (alone) as corresponding to the *“request to provision.”*

POR, 32. Rather, the Petition identifies the user’s entire act of “Configuring Bodart’s virtual assistant” as a *“request to provision.”* Pet., 32; Ex.1030, ¶31.

Petitioner Reply at 18.

# “a request to provision a second service”

## Supplemental Houh Declaration

part of providing rule-based services. Bodart, [0022], [0060]. The virtual assistant would gain access to those accounts by sending login credentials to the service provider’s server, as explained above. *See* Houh Dec., ¶¶31, 32, 110, 114. A POSITA would have therefore understood that Bodart’s IM- or email-based rules would not be functional until the login credentials are verified by the email or IM service provider’s server, and the rules are configured (collectively, the “*request to provision*”). Thus, a POSITA would have also understood that Bodart’s use of rules to automate “routine tasks” are new services that access the user’s existing service accounts (e.g., email, IM). Bodart, [0001].

Ex.1003, ¶32 (cited in  
Petitioner Reply at 18).

*“activate the second service with the second provider”*

Supplemental Houh Declaration

37. Patent Owner argues that that this form of *activat[ion]* “would at most be made available within Bodart’s virtual assistant, and not ‘*activate[d]... with the second provider.*’” POR, 39. This is also wrong. As I explained in my original Declaration, login credentials are sent to the application server of the second service provider, and the application server responds to acknowledge and grant access (e.g., with a security token, authenticated session file, etc.). Houh Dec., ¶¶31, 32, 137, 139. Thus, a POSITA would have understood that having the virtual assistant server gaining authenticated access to the service is activating the service “*with the second provider.*” Houh Dec., ¶¶137, 139.

Ex.1003, ¶37 (cited in Petitioner Reply at 22.

*“associate the second service with the first telephone number”*

Supplemental Houh Declaration

**40.** Patent Owner also argues that “[e]xecuting [Bodart’s] rules would not be ‘*responsive to*’” storing user credentials. POR, 46. Patent Owner misunderstands my original argument. My original Declaration demonstrates that the creation of the rules corresponds to the claimed “*associate*” step. Houh Dec., ¶145. It would have been obvious for the rules to be configured as part of the same “*request*” process in which a user provides their login credentials for email and IM service (“*the second service*”). Pet., 42-43; Bodart, [0024].

Ex.1003, ¶40 (cited in Petitioner Reply at 23-24.

# Key Points

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*“to provide... telephone service”*

de Castro

**[0002]** The present invention relates to telecommunication and a networked computer telephony system, and more particularly to a system and method for providing a telephony-enabled service via a message-based API interface.

Ex.1008, [0002] (cited in Petition at 53 & 60; Petitioner Reply at 26).

*“associated with the first telephone number”*

de Castro

[0116] Similar to that shown in FIG. 13, application clients such as VoIP phones 30, is able to access a specific communication application by calling a dialed number or an URL. The call is routed by an access server/router 14 into the IP network 10 to one of the communication application servers 200, such as App server 1. The routing is performed by looking up a directory service DIR0 16 with the IP address/dialed number in order to return the address of the communication application server executing the specific communication application.

Ex.1008, [0116] (cited in Petition at 60; Petitioner Reply at 28).

*“the telephone service is associated with the first telephone number”*

de Castro

## Calls

**[0139]** The Rayo protocol primarily deals with calls. Inbound calls originate from the PSTN or via SIP and are offered to Rayo clients via XMPP using a Jabber Identifier (JID). Each call is in turn represented by its own unique JID allowing a two way conversation between the Rayo client and the server that's handling the call signaling and media.

```
<!-- Message comes from the Call's JID -->
<presence to='16577@app.Rayo.net/1'
from='9f00061@call.Rayo.net/1'>
  <offer xmlns='urn:xmpp:Rayo:1'
    to='tel:+18003211212'
    from='tel:+13058881212'>
    <!-- Signaling (e.g. SIP) Headers -->
    <header name='Via' value='192.168.0.1' />
    <header name='Contact' value='192.168.0.1' />
  </offer>
</presence>
```

Ex.1008, [0139] & [0141] (cited in Petition at 60, 63).

*“the telephone service is associated with the first telephone number”*

de Castro

A POSITA would have understood that where “**application clients ... access a specific communication application** by calling a dialed number,” **each client** has a telephone number (“*first telephone number*”) that is associated with the communication application. Ex.1008, [0116]; Ex.1003, ¶¶225-226. For instance, de Castro describes a telephony application that receives an incoming call from a specific telephone number: “Incoming Calls <!-- Message comes from the Call's JID --> ... to=‘tel:+18003211212’ **from=‘tel:+13058881212’**>.” Ex.1008, [0141].

Petition at 60.

*“the telephone service is associated with the first telephone number”*

de Castro

### Calls

[0139] The Rayo protocol primarily deals with calls. Inbound calls originate from the PSTN or via SIP and are offered to Rayo clients via XMPP using a Jabber Identifier (JID). Each call is in turn represented by its own unique JID allowing a two way conversation between the Rayo client and the server that's handling the call signaling and media.

```
<!-- Redirect (e.g. SIP 302/Redirect). Only applies  
to incoming calls. -->  
<iq type='set' to='9f00061@call.Rayo.net/1'  
from='16577@app.Rayo.net/1'>  
  <redirect to='tel:+14152226789' xmlns='urn:xmpp:Rayo:1'>  
    <!-- Sample Headers(optional) -->  
    <header name="x-skill" value="agent" />  
    <header name="x-customer-id" value="8877" />  
  </redirect>  
</iq>
```

```
<!-- Message comes from the Call's JID -->  
<presence to='16577@app.Rayo.net/1'  
from='9f00061@call.Rayo.net/1'>  
  <offer xmlns='urn:xmpp:Rayo:1'  
    to='tel:+18003211212'  
    from='tel:+13058881212'>  
    <!-- Signaling (e.g. SIP) Headers -->  
    <header name='Via' value='192.168.0.1' />  
    <header name='Contact' value='192.168.0.1' />  
  </offer>  
</presence>
```

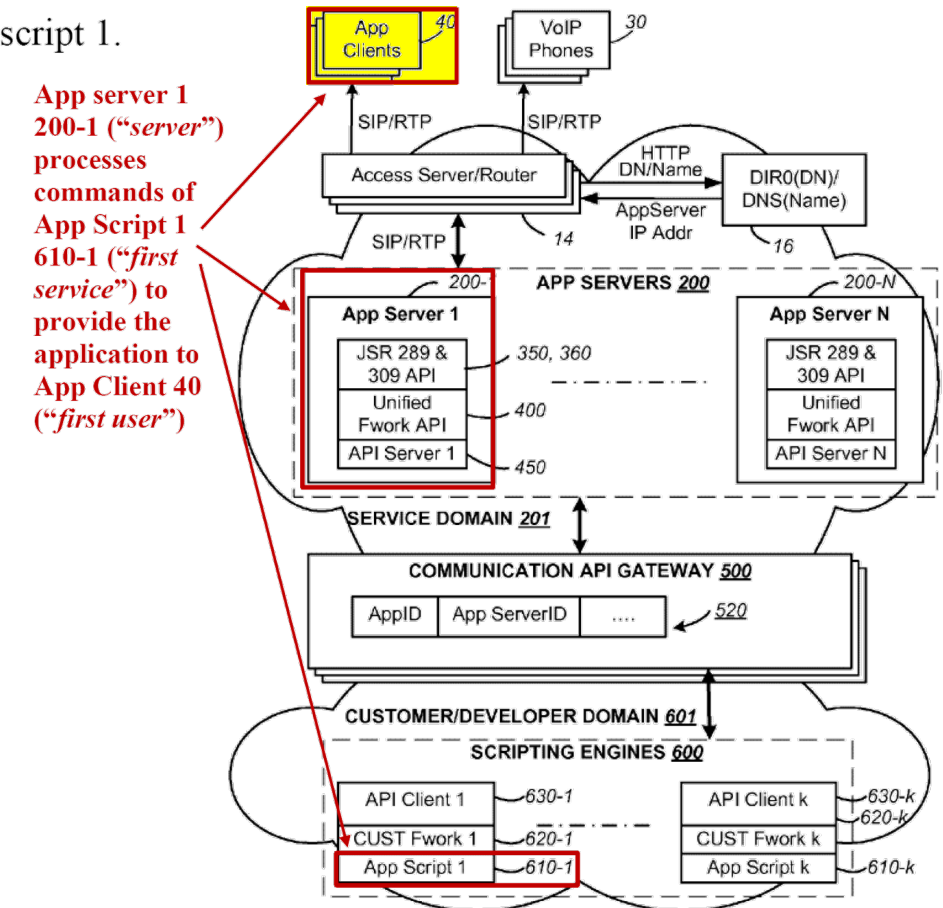
# *“a request to provision a second service for the first user”*

## Petition analyzing [1.4]

¶231. In response to the call from a **client 40**, the access server router 14 “return[s] the address of the communication application server executing the specification communication,” and the App server 200 registers the app server address for the call to provision an App Script for the **client 40** dialing in. Ex.1008, [0116], [0124], [0126], Fig.16; Ex.1003, ¶¶231-232. A POSITA would have understood that the App Server receiving the user’s call to provide access to a communication application teaches the app server “receiv[ing] a request to provision a second service for the first user.” Ex.1008, [0116]; Ex.1003, ¶¶231-235. Thus, de Castro

## Petition analyzing [1.3]

Fig.14 below illustrates app server 1 providing application **client 40** with the application of app script 1.



Application Servers Providing Communication Services while exchanging Command Messages with Remote Application Scripts

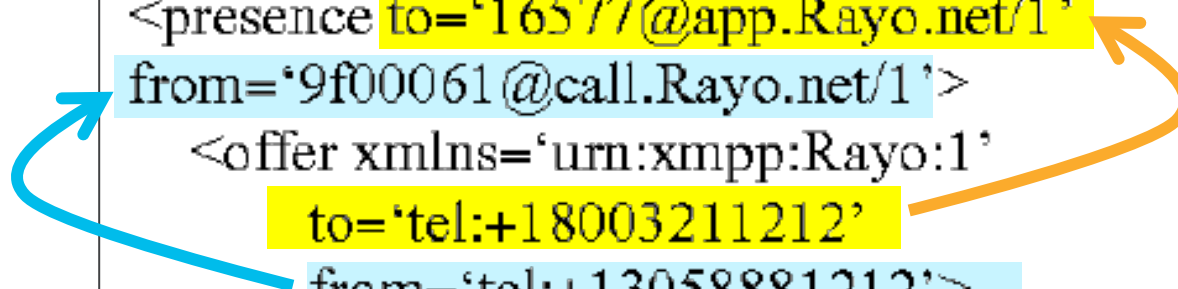
Petition at 58-59, 62.

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

Ex.1008, Fig.14 (annotated); Ex.1003, ¶219

*“mapping from the first telephone number to a second identifier (ID)”*

de Castro



```
<!-- Message comes from the Call's JID -->
<presence to='16577@app.Rayo.net/1'
from='9f00061@call.Rayo.net/1'>
  <offer xmlns='urn:xmpp:Rayo:1'
    to='tel:+18003211212'
    from='tel:+13058881212'>
    <!-- Signaling (e.g. SIP) Headers -->
    <header name='Via' value='192.168.0.1' />
    <header name='Contact' value='192.168.0.1' />
  </offer>
</presence>
```

Ex.1008, [0114] (discussed in Petition at 52, 60, 63-66; Petitioner Reply at 30-31).



The bridge to possible