

EXHIBIT A-1

Fish & Richardson P.C.					
45035.0002LL1 - Dish Network Corporation					
Fees and Costs Detail - worked 1/15/2021 - 7/31/2021					
Prepared on 8/12/2021					
Work Date	Tkr Current Elite Title	Tkr Name	Narrative	Billable Hrs	Fees
1/15/2021	Associate	Ballanco, Mike	Review court order reopening case (0.3)	0.3	217.50
	Principal	Cordell, Ruffin B.	final preparation for conference with Judge Jackson in Realtime matter (0.4); status conference with Judge Jackson in Realtime matter (0.8); confer with Dish re Judge Jackson lifting stay in Realtime matter (0.2); review and revision of status and strategy memorandum (0.7)	2.1	2,457.00
		Livedalen, Brian J.	Attend status conference re stay (1.0); prepare for same (0.8)	1.8	1,431.00
		Livedalen, Brian J.	Communicate with experts about case status in view of stay lifting (0.8)	0.8	636.00
		Livedalen, Brian J.	Draft case summary for client (3.5)	3.5	2,782.50
		Shartzter, Adam	Conduct call with litigation team re case strategy in view of stay being lifted (1.8); review and draft edits to strategy memo re case moving forward (0.7); search for and review case law re recent adaptive streaming case holding patent ineligible under 35 U.S.C. 101 (0.4)	2.9	2,392.50
		Shartzter, Adam	Prepare for and attend hearing with Judge Jackson (1.6)	1.6	1,320.00
		Paralegal	Afful, Adjoa K.	Prepare case summaries per attorney request (1.1)	1.1
1/18/2021	Principal	Livedalen, Brian J.	Review status of action items prior to stay (1.5); draft task list re same (1.0); review case history in Realtime v. Adobe (1.1)	3.6	2,862.00
		Shartzter, Adam	Conduct several calls with litigation team members re trial strategy (2.2); analyze current status of invalidity contentions (0.5); analyze current status of discovery (0.6); prepare for team call tomorrow (0.5); review case memo created at the stay to determine strategy for remainder of discovery (0.7); attend JDG call re future coordination (0.6); work on summary of trials before Judge Jackson during COVID and correspond with RBCordell re same (0.3)	5.4	4,455.00
1/19/2021	Associate	Ballanco, Mike	Update notice of scheduling conflicts regarding oral arguments and updated certificate of interest (1.4)	1.4	1,015.00
		Ellis, Michael	Confer with team re next steps following lifting of the stay (1.0); review status of final invalidity contentions and outstanding issues (1.4); confer with ARRIS re same (1.0)	3.4	2,295.00
		Park, Min Woo	Attend team meeting to discuss tasks and upcoming deadlines (1.5)	1.5	1,012.50
		Park, Min Woo	Review the 610 patent and Realtime's infringement contentions (7.3)	7.3	4,927.50
	Principal	Utreja, Raj	Strategize with team re upcoming discovery tasks and deadlines (0.9)	0.9	436.50
		Cordell, Ruffin B.	Confer with trial team re post stay case status and strategy moving forward (1.5)	1.5	1,755.00
		Tishman, Daniel	Participate in team meeting re case strategy (1.6)	1.6	1,272.00
		Tishman, Daniel	Review, analyze document production re damages (1.9); work on strategy re same (1.6)	3.5	2,782.50
		Livedalen, Brian J.	Meet with technical expert (0.3); meet with ARRIS re invalidity contentions (1.0)	1.3	1,033.50
		Livedalen, Brian J.	Participate in team strategy call (1.5); prepare for same (0.9)	2.4	1,908.00
		Livedalen, Brian J.	Research system prior art for final invalidity contentions (1.2)	1.2	954.00
Shartzter, Adam	Conduct team call re litigation planning (1.6); work on analysis re initial disclosures (0.5); conduct call with Mr. Hanft re update to relate dockets (0.1); conduct call with expert Al Bovik (0.4); conduct call with ARRIS to discuss planning re invalidity contentions (1.0); conference with RBCordell re strategy (0.4); review filings and updates re update as to stay status (0.7) review ex parte reexamination status (0.4)	5.1	4,207.50		
Paralegal	Afful, Adjoa K.	Identify and compile documents for attorney review (1.1)	1.1	291.50	
1/20/2021	Associate	Ballanco, Mike	Finalize and file amended certificate of interest (0.2)	0.2	145.00
		Ellis, Michael	Update cover pleading for final invalidity contentions and recirculate to team (0.7)	0.7	472.50
		Park, Min Woo	Review the 610 patent (3.6); review Realtime's infringement contentions (4.9)	8.5	5,737.50
		Utreja, Raj	Strategize re finalizing invalidity contentions (0.2); research USPTO assignment records for the 610 patent (1.9); research adaptive bitrate streaming (1.2); review and analyze pre-stay case record (2.2)	5.5	2,667.50
	Principal	Tishman, Daniel	Work on damages analysis and strategy (3.1); work on list of documents to collect re same (1.7)	4.8	3,816.00
		Livedalen, Brian J.	Complete final infringement contentions (2.5)	2.5	1,987.50
1/21/2021	Associate	Shartzter, Adam	Conduct analysis into state of initial disclosures (0.6); analyze needs for evidence re non-infringement defenses (1.4); review ex parte reexamination status and instruct team re document collection re same (0.5); draft update for ex parte reexamination status report re setting of trial date (1.3); work with discovery team regarding access for case members (0.8); collect damages related documents for the case and conference with DTishman re same (1.2)	5.8	4,785.00
		Ellis, Michael	Work in finalizing invalidity contention cover pleading and additional charts (3.0); confer with team re same (0.6); review outstanding discovery and drafts (1.1); summarize same for team (0.5); confer with team re next steps and responsibilities (1.0); develop interim timelines (0.4)	6.6	4,455.00

Work Date	Tkr Current Elite Title	Tkr Name	Narrative	Billable Hrs	Fees
		Utreja, Raj	Participate in team meeting and strategize re upcoming discovery deadlines (0.8)	0.8	388.00
		Utreja, Raj	Prepare spreadsheet summarizing current discovery, including interrogatories, requests for production, and requests for admission (1.3)	1.3	630.50
		Utreja, Raj	Revise 610 patent invalidity chart based on RealServer system art (Exhibit B45) (2.4)	2.4	1,164.00
	Principal	Cordell, Ruffin B.	Confer with trial team re supplement to initial disclosures in D. Colo case (0.3)	0.3	351.00
		Tishman, Daniel	Participate in team meeting re discovery strategy (1.0)	1.0	795.00
		Tishman, Daniel	Work on strategy re interrogatories (1.1); work on subpoena to RPX (0.9)	2.0	1,590.00
		Livedalen, Brian J.	Coordinate completion of case proof chart (1.8); coordinate team meeting re task list (0.7)	2.5	1,987.50
		Livedalen, Brian J.	Finalize final invalidity contentions (2.4); edit discovery requests (1.0); coordinate source code review (1.0)	4.4	3,498.00
		Shartzter, Adam	Work with litigation team regarding damages document collection (0.7); analyze invalidity charting and status of invalidity contentions (0.6); conduct review of cover pleading (0.4); review dockets in cases Judge Jackson stated that he took to trial during the pandemic (0.5)	2.2	1,815.00
	Paralegal	Afful, Adjoa K.	Prepare documents for production (0.7)	0.7	185.50
		Afful, Adjoa K.	Review and update documents into the litigation database (0.6)	0.6	159.00
	Other	Faeth, Edward G.	Work on collecting production documents (0.5)	0.5	132.50
	eDiscovery Anlst	Spanoudakis, Dennis	Process and prepare ARRIS_DISH0010553-ARRIS_DISH0016835 for production to opposing counsel (1.2)	1.2	312.00
1/22/2021	Associate	Ellis, Michael	Continue finalizing invalidity contention cover pleading (1.5); identify additional motivations to combine and related language (1.0); update charts and work with ARRIS re same (1.2); draft additional common and individual ROGs, RFPs, and RFAs (2.5); work with team to develop same (0.8)	7.0	4,725.00
		Park, Min Woo	Review document production to identify documents to support noninfringement of accused products (7.1)	7.1	4,792.50
		Utreja, Raj	Prepare summary of written discovery to-date and prepare spreadsheet to track 30b6 topics (0.8)	0.8	388.00
		Utreja, Raj	Revise 610 patent invalidity chart based on RealServer system art (Exhibit B45) (7.2)	7.2	3,492.00
	Principal	Tishman, Daniel	Participate in meeting with damages expert re damages (0.6); participate in call with Baker Botts re financial document collection (0.5)	1.1	874.50
		Tishman, Daniel	Review, revise discovery requests (1.8); review, analyze documents re damages and work on proof chart re same (1.2); participate in team meeting re same (0.7)	3.7	2,941.50
		Livedalen, Brian J.	Finalize invalidity contentions (3.2); edit discovery requests (2.9)	6.1	4,849.50
		Shartzter, Adam	Search for deposition outlines of Realtime witnesses and begin preparations for deposition (0.8); advise team regarding prior analysis into license agreements for production (0.7); work with team to finalize invalidity contentions (0.8); investigate updates to invalidity positions in view Realtime's positions during IPR (1.2); correspond with DISH re current invalidity contentions status (0.3)	3.8	3,135.00
	Paralegal	Afful, Adjoa K.	Prepare documents for production (0.3)	0.3	79.50
	eDiscovery Anlst	Spanoudakis, Dennis	Process and prepare AR RIS_DISH0016836-ARRIS_DISH0016873 for production to opposing counsel (0.6)	0.6	156.00
1/23/2021	Associate	Ellis, Michael	Organize updated invalidity charts and coordinate same with ARRIS (1.0); confer with team re additional cover pleading edits (1.1)	2.1	1,417.50
		Park, Min Woo	Review document production to identify evidence to support noninfringement re DISH TV and products with Sling functionality (4.2)	4.2	2,835.00
	Principal	Tishman, Daniel	Work on deposition preparation outlines re damages (1.2)	1.2	954.00
		Shartzter, Adam	Correspond with litigation team re need to update contentions re section 112 positions in view of positions taken by Realtime during IPR (0.7)	0.7	577.50
1/24/2021	Associate	Ellis, Michael	Update invalidity charts with additional combination language (2.0); work with ARRIS to finalize same (1.6); work with Fish team to finalize the invalidity contentions cover pleading (1.0)	4.6	3,105.00
	Principal	Tishman, Daniel	Work on deposition preparation outlines re damages (0.2)	0.2	159.00
		Livedalen, Brian J.	Finalize invalidity contentions (1.2)	1.2	954.00
		Shartzter, Adam	Analyze invalidity contentions and updates thereto (1.7)	1.7	1,402.50
1/25/2021	Associate	Ellis, Michael	Draft additional common and individual RFAs (2.2); work with team to finalize same and remaining discovery (0.8); confer with ARRIS re final invalidity contentions and work with team and ARRIS to serve (1.2)	4.2	2,835.00
		Park, Min Woo	Review Realtime's infringement contentions re set-top boxes and SlingTV (3.5); review document production to identify evidence of noninfringement (4.7)	8.2	5,535.00
		Utreja, Raj	Prepare subpoenas for RPX to testify at deposition and produce documents (4.1); prepare initial disclosures (3.6); review and analyze all interrogatories, requests for admission, and requests for production (1.8); strategize with team re discovery and deposition preparation for damages witnesses (0.4)	9.9	4,801.50
	Principal	Tishman, Daniel	Review, revise interrogatories and request for production (1.7); review, revise subpoena to RPX (1.4)	3.1	2,464.50
		Tishman, Daniel	Work on deposition preparation outline re financial documents (1.4)	1.4	1,113.00

Work Date	Tkr Current Elite Title	Tkr Name	Narrative	Billable Hrs	Fees
		Shartzter, Adam	Conduct review of licenses for potential production and work with damages expert on efforts to determine final list for production (3.3); analyze existing discovery regarding interrogatories, requests for admission and requests for production and draft edits to same (2.3) confer with team and review invalidity contentions cover pleading and draft edits to same (1.4); correspond with DISH re outgoing contentions and discovery updates (0.4)	7.4	6,105.00
	Paralegal	Afful, Adjoa K.	Finalize documents for production (0.6)	0.6	159.00
		Afful, Adjoa K.	Prepare materials for expert review (1.6)	1.6	424.00
	Other	Gilman, Chad	Online research re RPX Corporation Agent for Service (0.6)	0.6	159.00
1/26/2021	Associate	Ellis, Michael	Review served invalidity contentions and correct error in cover pleading (1.2); work with ARRIS to resolve and re-serve (0.4); meet with team re upcoming deadlines and responsibilities (0.6); continue editing discovery and amended disclosure drafts (0.9); work with ARRIS and internal team to finalize discovery for service (0.5)	3.6	2,430.00
		Park, Min Woo	Draft a deposition outline for 30b6 witness on technical topics re DISH TV (6.8)	6.8	4,590.00
		Utreja, Raj	Prepare for and participate in weekly team meeting and prepare minutes for same (0.6)	0.6	291.00
		Utreja, Raj	Review and analyze DISH and Realtime productions for documents to support damages theories (2.3)	2.3	1,115.50
		Utreja, Raj	Revise subpoenas for RPX to testify at deposition and produce documents (2.9); review and analyze protective order and prepare summary of options for source code inspection based on same (1.7)	4.6	2,231.00
	Principal	Cordell, Ruffin B.	Confer with trial team re source code review (0.3)	0.3	351.00
		Tishman, Daniel	Draft correspondence re production of licenses (0.9)	0.9	715.50
		Tishman, Daniel	Participate in internal team meeting re strategy (0.9)	0.9	715.50
		Tishman, Daniel	Review, revise subpoena to RPX (1.2); draft correspondence to client re same (0.2); correspond with RPX outside counsel re same (0.1)	1.5	1,192.50
		Tishman, Daniel	Work on deposition preparation outline re financial records (2.2); work on deposition preparation outline re marketing (0.9); work on deposition outline re Realtime licenses (0.9)	4.0	3,180.00
		Livedalen, Brian J.	Coordinate weekly team meeting (1.0)	1.0	795.00
		Livedalen, Brian J.	Finalize outgoing discovery requests (2.5)	2.5	1,987.50
		Shartzter, Adam	Conduct meeting with litigation team and discuss tasks for discovery this week (0.8); conduct review of RPX subpoena and correspond with DISH re same (0.7); correspond with litigation team re strategy for RPX documents and for related damages theories (0.6); work with team on source code review request from Realtime (0.7); draft agenda for bi-weekly meeting call (0.6)	2.8	2,310.00
	Paralegal	Afful, Adjoa K.	Identify and compile agreement information for attorney review (2.1)	2.1	556.50
	eDiscovery Anlst	Spanoudakis, Dennis	Process and prepare documents for case team analysis (0.4)	0.4	104.00
1/27/2021	Associate	Ellis, Michael	Work with team and ARRIS to finalize RFAs (1.2); assist team in locating additional licenses (0.5); assist team in sending client update email (0.4); provide additional edits on initial disclosures (0.6); review status of third party subpoenas (0.3)	3.0	2,025.00
		Park, Min Woo	Draft a deposition outline for 30b6 witness on technical topics re DISH TV (4.6); draft a deposition outline for 30b6 witness on technical topics re Sling products (2.8)	7.4	4,995.00
		Utreja, Raj	Review and analyze DISH and Realtime productions for documents to support damages theories (3.8); review and analyze case docket and litigation history (2.2)	6.0	2,910.00
		Utreja, Raj	Revise RPX subpoena (1.0); revise initial disclosures with recent addresses of listed entities (1.2); prepare report email same (0.2)	2.4	1,164.00
	Principal	Tishman, Daniel	Revise initial disclosures (0.4); revise subpoena to RPX (0.3)	0.7	556.50
		Tishman, Daniel	Work on analysis of licenses for production (2.8)	2.8	2,226.00
		Livedalen, Brian J.	Edit requests for admission (1.5)	1.5	1,192.50
		Livedalen, Brian J.	Meet with counsel fr Google re Realtime/Google litigation (0.6); prepare or same (0.2)	0.8	636.00
		Shartzter, Adam	Analyze current status of initial disclosures and correspond with team re same (0.6); conference with RBCordell re case status and strategy (0.4); prepare for and conduct call with DISH re status of litigation (0.6); draft strategy summary memo for litigation team re action items moving forward this week (0.7); review correspondence re licenses and prepare for sending notice letters re production (0.4); conduct call with Google's counsel and follow up with BVLivedalen re strategy after the call (0.9)	3.6	2,970.00
	Paralegal	Afful, Adjoa K.	Review and update agreement information (0.9)	0.9	238.50
	Other	Myers, Teresa	Online research re company headquarter addresses (0.6)	0.6	159.00
1/28/2021	Associate	Ballanco, Mike	Review Realtime response to notice of oral argument (0.1)	0.1	72.50
		Ellis, Michael	Make additional edits to initial disclosures; review prior system art (1.2)	1.2	810.00
		Park, Min Woo	Draft deposition prep outline for Sling and DISH set-top box-related issues (8.1)	8.1	5,467.50
	Principal	Cordell, Ruffin B.	Confer with trial team re source code review (0.3)	0.3	351.00
		Tishman, Daniel	Review, analyze licenses for production (1.2)	1.2	954.00
		Tishman, Daniel	Work on document collection analysis re financial documents (2.6); review, revise	2.7	2,911.50

Work Date	Tkr Current Elite Title	Tkr Name	Narrative	Billable Hrs	Fees
		Livedalen, Brian J.	Coordinate source code review (0.9); coordinate document review (0.8)	1.7	1,351.50
		Shartzter, Adam	Gather and review recent licenses reached by DISH (0.8)	0.8	660.00
	Other	Myers, Teresa	Online research re company headquarter addresses (0.3)	0.3	79.50
1/29/2021	Associate	Ballanco, Mike	Discuss Realtime response to notice of oral argument with team (0.1)	0.1	72.50
		Ellis, Michael	Review systems prior art and associated discovery (2.1); confirm production of same (0.4); review Realtime's final infringement contentions (1.1); rank systems prior art (1.0)	4.6	3,105.00
		Park, Min Woo	Draft deposition prep outline for 30b6 witness re topics related to DISH TV (7.6)	7.6	5,130.00
		Utreja, Raj	Review and analyze DISH and Realtime productions and DISH's iDiscovery database for documents to support damages theories (8.2)	8.2	3,977.00
	Principal	Cordell, Ruffin B.	confer with trial team re availability of source code in DC, possible LA review option (0.4); confer with opposing counsel re source code review (0.1)	0.5	585.00
		Tishman, Daniel	Review, analyze licenses for production (5.5); participate in teleconference with damages expert re same (0.6)	6.1	4,849.50
		Tishman, Daniel	Work on document collection re financial documents (1.1)	1.1	874.50
		Livedalen, Brian J.	Identify witnesses for 30b6 topics (2.8)	2.8	2,226.00
		Shartzter, Adam	Meet with Mr. Tishman to discuss licenses for production and parameters re same (0.6); correspond with damages expert team re licenses (0.4); review recent order on section 285 sanctions and circulate to team for use with 285 letter to Realtime (0.6); correspond with DISH re initial disclosures (0.5); work on source code review logistics (0.4)	2.5	2,062.50
	Paralegal	Afful, Adjoa K.	Review and update documents into the litigation database (0.6)	0.6	159.00
1/30/2021	Associate	Park, Min Woo	Draft deposition prep outline for 30b6 witness re topics related to DISH TV (7.5)	7.5	5,062.50
	Principal	Cordell, Ruffin B.	Confer with opposing counsel re source code review (0.1)	0.1	117.00
		Tishman, Daniel	Draft email to client re production of licenses (0.7)	0.7	556.50
		Shartzter, Adam	Review draft correspondence re license production (0.3)	0.3	247.50
1/31/2021	Principal	Tishman, Daniel	Draft correspondence to third parties re production of license agreements (1.3)	1.3	1,033.50
					230,349.00
2/1/2021	Associate	Ellis, Michael	Continue reviewing system art and identifying deficiencies in RealSystem production (1.8); review draft gripe letter (0.3); confer with team re next steps and responsibilities (0.7); confer with team re system art recommendation and marking defense (0.4); review correspondence re same (0.3); research Arctic Cat case law (1.3); confer with ARRIS counsel re division of discovery responsibilities (0.2); draft Arctic Cat analysis and circulate internally (0.3)	5.3	3,577.50
		Park, Min Woo	Draft deposition prep outlines for the 30b6 witnesses re DISH TV and set-top boxes (10.1)	10.1	6,817.50
		Utreja, Raj	Prepare for and participate in weekly team meeting (0.7)	0.7	339.50
		Utreja, Raj	Prepare letter to opposing counsel re Realtime's discovery deficiencies (2.2); prepare a list of witnesses and notices of deposition (1.3); conduct miscellaneous production search (1.6); work on 30(b)(6) objections (1.5)	6.6	3,201.00
	Principal	Tishman, Daniel	Draft notice letters to third parties re production of license agreements (1.2); participate in teleconference with counsel at Baker Botts re collection of cost documents (0.2); correspond with client re same (0.2); work on collection of financial documents from iDiscovery (0.7)	2.3	1,828.50
		Tishman, Daniel	Review, analyze RPX license re damages assessment (1.1); work on identification of witnesses for corporate deposition (0.7); participate in team meeting re case strategy (0.9)	2.7	2,146.50
		Livedalen, Brian J.	Coordinate weekly team meeting (0.8); prepare agenda for same (0.5); coordinate system prior art investigation (1.0)	2.3	1,828.50
		Livedalen, Brian J.	Draft correspondence to Realtime re licensed products (1.9); research licensed products (1.0); meet with ARRIS re 30b6 strategy (0.5)	3.4	2,703.00
		Livedalen, Brian J.	Prepare email to client re 30b6 witnesses (0.9)	0.9	715.50
		Livedalen, Brian J.	Review, edit technical 30b6 outline for DISH DBS (2.9)	2.9	2,305.50
		Shartzter, Adam	Plan for trial strategy and correspond with team (0.4); meet with litigation team to discuss case strategy (0.9); conduct call with ARRIS re coordination (0.5); prepare emails for DISH regarding discovery and license productions (0.8); meet with ARRIS to discuss discovery coordination and invalidity expert report (0.5); review correspondence and respond to DISH re deposition assignments (0.5); work on document review access re IDS (0.4) investigate Sling TV encoder productions (0.5)	4.5	3,712.50
	Paralegal	Afful, Adjoa K.	Identify and compile documents for review and production (1.6)	1.6	424.00
2/2/2021	Associate	Ellis, Michael	Review Arctic Cat and related case law (2.9); review marking order in Echostar case (0.3); draft supplemental interrogatory response re marking (1.3); review license agreements for coverage of the 610 patent and applicable products (0.5); review original complaints of licensee's re same (0.6); work with team to finalize supplemental interrogatory and amended initial disclosures (0.2)	5.8	3,915.00
		Park, Min Woo	Draft deposition prep outlines for the 30b6 witnesses re DISH TV and set-top boxes (6.8)	6.8	4,590.00
	Principal	Tishman, Daniel	Work on document production strategy (1.1); revise, approve letters to third parties	1.8	1,421.00

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