



October 12, 2018

**VIA ELECTRONIC FILING**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: *Promoting Investment in the 3550-3700 MHz Band (GN Docket No. 17-258);  
Unlicensed Use of the 6 GHz Band (ET Docket No. 18-295); Expanding Flexible  
Use in Mid-Band Spectrum Between 3.7 and 24 GHz (GN Docket No 17-183)***

Dear Ms. Dortch:

On October 11, 2018, Dave Wright and I of Ruckus Networks/ARRIS, along with Melanie Medina of Willkie Farr & Gallagher LLP, met separately with Rachael Bender, wireless advisor to Chairman Pai, and Will Adams, wireless advisor to Commissioner Carr. We commended the Commission's ongoing efforts to promote America's leadership in 5G and to free up additional spectrum for wireless use, in particular the forthcoming 3.5 GHz CBRN Report and Order and the Notice of Proposed Rulemaking on unlicensed operation in the 6 GHz band.

We highlighted our serious concerns, however, about the harmful effects of the recently-enacted tariffs on Chinese imports on U.S. 5G leadership and the wider broadband economy.<sup>1</sup> The tariffs, which have already gone into effect, impose additional 10 percent duties on \$200 billion of goods, including core broadband infrastructure and networking equipment and other critical inputs for wireless and wireline connectivity, as well as consumer broadband equipment. These tariffs will automatically increase to 25 percent on January 1, 2019.

The costs to the U.S. broadband economy will be significant. Even at just the 10 percent level, ARRIS estimates that the tariffs will impose approximately \$200 million per year in additional costs on its equipment and devices that enable broadband connectivity. We explained that the tariffs risk slowing deployment of 5G and broadband more generally, diverting resources away from 5G and other broadband research and development efforts, and threatening U.S. broadband leadership. We underscored that, while ARRIS supports the Administration's goal of curtailing unfair trade practices

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<sup>1</sup> See, e.g., Press Release, Office of the U.S. Trade Representative, USTR Finalizes Tariffs on \$200 Billion of Chinese Imports in Response to China's Unfair Trade Practices (Sept. 18, 2018), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/september/ustr-finalizes-tariffs-200>; Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 47974 (Sept. 21, 2018). These concerns are detailed in ARRIS's comments filed with USTR, a copy of which was provided during the meetings and is attached as Appendix A.

abroad, ARRIS firmly believes that the immediate imposition of tariffs will complicate the achievement of the Administration's 5G and broadband objectives.

With respect to the 3.5 GHz CBRS proceeding, we thanked the Commission for restoring certainty regarding the PAL tier with its draft Report and Order. We also discussed the enhancements to the "light-touch leasing" framework that Ruckus/ARRIS and others had proposed during the Comment and Reply Comment phases of the Notice of Proposed Rulemaking, and encouraged the Commission to incorporate these enhancements in the final Report and Order, noting that they would complement and strengthen the existing provisions related to secondary markets and performance requirements.<sup>2</sup>

Respectfully submitted,

/s/ Jason E. Friedrich

Jason E. Friedrich

Vice President – Government & Regulatory Affairs

ARRIS

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cc: Rachael Bender  
Will Adams

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<sup>2</sup> See Ruckus Networks Comments, GN Docket No. 17-258, at 16-19 (Dec. 28, 2017); Ruckus Networks Reply Comments, GN Docket No. 17-258, at 7-10 (Jan. 29, 2018).

# Appendix A



August 30, 2018

**VIA ELECTRONIC FILING**

Ambassador Robert E. Lighthizer  
United States Trade Representative  
Office of the U.S. Trade Representative  
600 17<sup>th</sup> Street, NW  
Washington, DC 20508

***Re: Comments of ARRIS U.S. Holdings, Inc. on Proposed Supplemental Action Pursuant to Section 301: China's Act, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation; Docket No. USTR-2018-0026***

Dear Ambassador Lighthizer:

ARRIS U.S. Holdings, Inc. ("ARRIS") respectfully submits these comments in response to the Office of the United States Trade Representative's ("USTR's") proposed supplemental action pursuant to the Section 301 investigation of the acts, policies, and practices of the Government of China related to technology transfer, intellectual property, and innovation.<sup>1</sup>

**I. INTRODUCTION AND SUMMARY**

ARRIS commends the Administration's work to promote fair trade and supports its goal to curtail unfair trade practices abroad. However, ARRIS firmly believes that the immediate imposition of additional wide-reaching tariffs is not the best way to achieve that goal, particularly when it affects products that are key to the U.S. broadband economy.

The most recent proposed tariff list would impose additional duties on a broad swath of ARRIS broadband-related products including, among other things, modems and gateways, core broadband

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<sup>1</sup> *Request for Comments Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 33608 (July 17, 2018); *Extension of Public Comment Period Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 38760 (Aug. 7, 2018).

infrastructure and networking equipment such as access points, and other inputs for wireline and wireless broadband connectivity. As the leading supplier of such equipment to broadband service providers, other businesses, and consumers, ARRIS estimates that the proposed tariffs, if adopted, would impose approximately \$200 million *per year* in additional costs on its products.<sup>2</sup>

As the President set forth in his memorandum directing USTR to begin its Section 301 investigation, the goals of the investigation are, among others, to: (1) ensure that U.S. businesses can compete fairly in the global marketplace, (2) protect American services and innovation, and (3) create American jobs.<sup>3</sup> However, raising tariffs on broadband products would harm, not help, U.S. competitiveness, innovation, and job-creation. It also would not advance USTR's goal of addressing forced technology transfers or intellectual property theft, as the affected ARRIS products do not involve forced or unauthorized technology transfers.

Broadband is a major driver of economic growth and innovation in the U.S. The proposed tariffs would effectively impose a massive tax on our country's broadband ecosystem by significantly raising the costs of key broadband inputs. Ultimately, American consumers and businesses, including small and mid-size businesses, would pay the price. Moreover, the imposition of tariffs would create a drag on future broadband innovation, putting U.S. broadband leadership, including 5G wireless efforts, and American jobs at risk.

Given the serious implications of the proposed tariffs on the U.S. broadband economy, USTR should remove broadband-related equipment from the proposed list of additional items subject to

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<sup>2</sup> On August 1, 2018, USTR proposed to more than double the level of additional duty imposed on the listed products, raising the tariff level from 10 percent to 25 percent. This action would cause significant additional costs to ARRIS and would result in further disruptions to ARRIS's supply chain, driving the cost of ARRIS products even higher and ultimately further harming U.S. consumers. *See Extension of Public Comment Period Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 38760 (Aug. 7, 2018).

<sup>3</sup> *Presidential Memorandum for the United States Trade Representative* (Aug. 14, 2017), <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-united-states-trade-representative/>.

Section 301 tariffs.<sup>4</sup> As the Consumer Technology Association has explained, the most problematic line item for its members, which includes ARRIS, is HTS subheading 8517.62.00.<sup>5</sup> If USTR nonetheless elects to move ahead with the proposed tariffs, it should provide affected companies like ARRIS with enough time – at least 12 months – to make necessary operational changes in order to avoid significant disruptions to the U.S. broadband supply chain. ARRIS broadband equipment is complex and involves highly customized manufacturing operations. Working with its manufacturing partners, ARRIS will incur significant time and expense in shifting operations outside of China, particularly given the need to ensure the security of proprietary information and technology for ARRIS and its broadband provider customers.

## **II. BACKGROUND ON ARRIS**

ARRIS, headquartered in Suwanee, Georgia, is a global leader in entertainment, communications, and networking technology. Its mission is to “redefine connectivity” in a rapidly evolving global communications industry. ARRIS’s innovative offerings combine hardware, software, and services to enable connectivity that delivers expanding bandwidth, high speeds, and reliability. ARRIS products and services are utilized by the leading service providers, commercial enterprises, and the hundreds of millions of consumers they serve. ARRIS enables service providers, including cable, telecom, digital broadcast satellite operators and media programmers, to deliver IP data, media, and voice services to their subscribers using ARRIS broadband access infrastructure equipment and platforms, set-top boxes, and customer equipment for broadband data and voice. ARRIS also sells modems and other broadband devices directly to consumers through retail channels.

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<sup>4</sup> See list of HTS codes that cover affected ARRIS products below.

<sup>5</sup> Communications Daily, *CTA Finds 302 Tariff Lines Members Want Excluded from 10% Duties*, Sage Says, July 31, 2018.

In addition, on December 1, 2017, ARRIS acquired Ruckus Wireless (“Ruckus”) (now Ruckus Networks, an ARRIS Company), which is now ARRIS’s wireless division. Ruckus focuses on the delivery of innovative, high-performance wireless and wired network infrastructure solutions for Internet access, the Internet of Things, and lower cost private cell networks across industries, including hospitality, education, government, public venues, and smart cities.

ARRIS has approximately 3,900 employees across 18 locations in the United States, including a significant presence in Georgia, Pennsylvania, Illinois, and California. ARRIS’s corporate headquarters are located in Suwanee, Georgia, with approximately 470 employees at this location. ARRIS’s customer premises equipment and supply chain operations are based in Horsham, Pennsylvania, where there are approximately 650 employees. ARRIS’s Lisle, Illinois facility has around 220 employees, many of whom are engaged in product management, engineering, marketing and supply chain and program management. In addition, with the acquisition of Ruckus, ARRIS’s location in Sunnyvale, California is now one of its largest, with approximately 470 employees.

ARRIS also has significant engineering resources and employees in the U.S. dedicated to research and development through laboratories in Beaverton, Oregon; Horsham, Pennsylvania; Lisle, Illinois; Lowell, Massachusetts; Santa Clara, California; San Diego, California; San Jose, California; Sunnyvale, California; Suwanee, Georgia; and Wallingford, Connecticut.

### **III. LIST OF AFFECTED PRODUCTS**

The ARRIS products covered by the proposed tariffs include telephony/broadband/data gateways, cable/telephony modems, nodes, wireless access points, bridgers, routers, controllers, and transceivers, which fall under HTS subheading 8517.62.00.<sup>6</sup> ARRIS also has various other affected products that fall under the following HTS subheading codes:

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<sup>6</sup> This HTS subheading code represents more than half of all ARRIS imports to the U.S., and most of the products falling under this code currently are manufactured in China.

3919.90.50	3925.90.00	8302.50.00	8414.59.65	8504.40.85	8504.40.95	8507.60.00
8523.52.00	8525.50.30	8525.60.20	8529.90.13	8529.90.83	8536.69.40	8536.69.80
8538.90.60	8543.70.99	8544.20.00	8544.42.20	8544.42.90	8544.70.00	9013.80.90

#### **IV. TARIFFS ON ARRIS PRODUCTS WOULD NOT FURTHER THE SPECIFIC GOALS DETAILED IN USTR’S SECTION 301 INVESTIGATION REPORT.**

With both the previously-enacted and newly-proposed tariffs, USTR has said that its goals are to eliminate China’s harmful acts, policies, and practices related to forced technology transfer and intellectual property theft.<sup>7</sup> The initial list of tariffs released by USTR was comprised of products tailored to this goal, including products that China has specifically targeted in its Made in China 2025 industrial program.<sup>8</sup>

The ARRIS products covered by the latest proposal, however, do not involve unauthorized or forced technology transfer agreements with a Chinese company. The proposed tariffs on these ARRIS products would therefore result in significant harms to the U.S. broadband economy and consumers, as discussed further below, without directly addressing the harmful practices that the Section 301 investigation was initiated to address.

#### **V. THE PROPOSED TARIFFS WOULD HARM THE U.S. BROADBAND ECOSYSTEM AND BROADBAND INNOVATION, HURTING AMERICAN BUSINESSES AND CONSUMERS.**

##### **A. Broadband Is a Key Driver of American Economic Growth and Jobs.**

Today, broadband is a cornerstone of the U.S. economy, and is one of the most important drivers of our country’s economic growth and innovation.<sup>9</sup> Broadband connectivity is critical to ensuring that

<sup>7</sup> See *Request for Comments Concerning Proposed Modification of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 33608 (July 17, 2018); see also Office of the United States Trade Representative, *Findings of the Investigation into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974* (Mar. 22, 2018), <https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF>.

<sup>8</sup> *Notice of Determination and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 14906 (Apr. 6, 2018).

<sup>9</sup> Indeed, according to one survey, the majority of Americans agree that broadband is integral to the economy, creating opportunities in a variety of sectors particularly for healthcare, education, and small businesses. See NCTA, *Data*



our country and American businesses and workers remain competitive in the global marketplace. Broadband, including both wired and wireless, contributes more than \$1 trillion annually to the U.S. economy,<sup>10</sup> and supports upwards of 2.9 million American jobs.<sup>11</sup> Historically, the U.S. has been a global leader in broadband. U.S.-based broadband delivers among the fastest broadband speeds in the world, with retail Internet speeds that can reach up to 2 Gbps.<sup>12</sup> And entry-level pricing for American broadband is the second lowest in the world.<sup>13</sup>

The U.S. has also long been a leader in total number of Wi-Fi hotspots, which allow consumers to connect to the Internet wirelessly in public places without relying on their mobile data plan, for example.<sup>14</sup> These hotspots have become an important part of extending the broadband experience beyond the home, for consumers, American businesses like hotels and coffee shops that offer Wi-Fi connectivity as a benefit to their customers, and schools and libraries. And ARRIS's wireless division, Ruckus, is playing an important role in supporting these efforts.

In addition to public Wi-Fi hotspots, Wi-Fi connectivity in the home is also critical to supporting the rapid evolution of the Internet of Things ("IoT"). ARRIS Wi-Fi routers and gateways enable wireless Internet connections for IoT devices using Wi-Fi technology. Today, the average American home has 15 connected devices, most of which are connected to the Internet via Wi-Fi.<sup>15</sup> This includes not only laptops and tablets, but the growing array of Internet-connected devices like smart TVs and

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*Shows Americans See the Internet as Key to the Economy*, Feb. 15, 2018, <https://www.ncta.com/whats-new/data-shows-americans-see-the-internet-as-key-the-economy>.

<sup>10</sup> USTelecom, *Broadband Industry Stats*, <https://www.ustelecom.org/broadband-industry/broadband-industry-stats>.

<sup>11</sup> NCTA, *Fast Facts About Cable's \$421 Billion Impact*, July 20, 2018, <https://www.ncta.com/whats-new/fast-facts-about-cables-421-billion-impact>.

<sup>12</sup> NCTA, *America's Internet Leadership*, <https://www.ncta.com/positions/americas-internet-leadership>.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

streaming media players, lightbulbs and switches, home monitoring devices, thermostats, refrigerators, and much more.

The broadband Americans enjoy today, and its contribution to the American economy, jobs, and the everyday lives of consumers, are the product of decades of capital investment as well as research and development efforts by broadband providers and manufacturers like ARRIS that supply critical broadband inputs. Indeed, since 1996, broadband companies have invested over \$1.6 trillion in broadband infrastructure alone.<sup>16</sup>

**B. The Proposed Tariffs Would Hurt U.S. Consumers and Businesses, and Undermine U.S. Broadband Innovation Goals.**

When calling on USTR to initiate a Section 301 investigation, the President stated that the goals of the investigation included: (1) ensuring that U.S. businesses can compete fairly in the global marketplace; (2) protecting American services and innovation; and (3) creating American jobs.<sup>17</sup> The proposed tariffs, however, are at odds with the Administration's important trade objectives. These additional tariffs would jeopardize today's thriving broadband ecosystem, ultimately harming American businesses and jobs, consumers, as well as future broadband innovation.

As noted, ARRIS supplies a wide range of devices that are critical to the broadband economy – from in-home modems and gateways for broadband consumers, to network and infrastructure equipment for ISPs, to Wi-Fi connectivity in public places. The proposed tariffs would significantly drive up costs on the ARRIS equipment and devices that enable Internet connectivity – approximately \$200 million a year at the 10% tariff level– creating a domino effect of cost increases in the broadband supply chain and resulting in a host of negative impacts across the economy:

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<sup>16</sup> Patrick Brogan, *USTelecom Industry Metrics and Trends 2018*, at 12 (Mar. 1. 2018), <https://www.ustelecom.org/sites/default/files/images/USTelecom%20Industry%20Metrics%20and%20Trends%202018.pdf>.

<sup>17</sup> *Presidential Memorandum for the United States Trade Representative* (Aug. 14, 2017), <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-united-states-trade-representative/>.

**Higher Prices for Consumers.** The increased costs of key broadband inputs for broadband providers ultimately will be passed on to American consumers, likely in the form of higher prices for broadband service and/or equipment. Higher prices would deter more unconnected Americans from purchasing broadband service, thus inhibiting broadband adoption. Such an outcome would be directly contrary to the Administration’s goal of promoting broadband adoption in rural and other underserved areas.<sup>18</sup> Indeed, the federal government and many state governments spend billions of dollars to subsidize broadband expansion, and the proposed tariffs would undercut these efforts, reducing the effectiveness of these important initiatives.<sup>19</sup>

**Hurts Small and Mid-Size Businesses.** These higher costs would be particularly difficult for small and mid-size American businesses to absorb. ARRIS is a key supplier of broadband network equipment to small and mid-size U.S. communications providers, including rural providers, and is well aware of the cost pressures these providers face in a competitive broadband marketplace.<sup>20</sup> Likewise, America’s small and mid-size businesses rely on Ruckus products and solutions to provide wireless services for their employees, customers, and guests. The proposed tariffs would result in higher costs to this vital sector of the economy, creating a drag on future growth and job creation.

**Decreased Broadband Innovation.** Higher costs for broadband equipment would also have the undesirable effect of diminishing broadband investment and innovation. Money spent on higher tariffs

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<sup>18</sup> See, e.g., *Promoting Agriculture and Rural Prosperity in America*, Executive Order 13790, 82 Fed. Reg. 20237 (Apr. 28, 2017); Legislative Outline for Rebuilding Infrastructure in America, at 7 (Feb. 12, 2018), <https://www.whitehouse.gov/wp-content/uploads/2018/02/INFRASTRUCTURE-211.pdf>.

<sup>19</sup> See, e.g., Press Release, FCC Takes Final Steps for Next Phase of Rural Broadband Expansion (Jan. 30, 2018), <https://docs.fcc.gov/public/attachments/DOC-348933A1.pdf> (providing nearly \$2 billion over the next decade to expand fixed high-speed Internet in underserved rural areas).

<sup>20</sup> See, e.g., Press Release, NTCA—The Rural Broadband Association, Government Support To Bridging the Digital Divide in Rural America (July 11, 2018), <https://www.ntca.org/ruralischool/newsroom/press-releases/2018/11/government-support-key-bridging-digital-divide-rural> (noting that “[d]elivering broadband to sparsely populated rural areas is a costly and challenging endeavor that requires significant upfront investment”); see also Steve G. Parsons & James Stegeman, *Rural Economics: A Review of Rural Subsidies* (July 11, 2018), <https://www.ustelecom.org/sites/default/files/Rural%20Broadband%20Economics-A%20Review%20of%20Rural%20Subsidies%20final%20paper.pdf>.

likely means less money for broadband research and development efforts. And less R&D spending would, in turn, ultimately make U.S. products, services, and businesses less competitive in today's global economy, where technology changes rapidly and innovation is at a premium.

***Putting U.S. 5G Leadership at Risk.*** The proposed tariffs would also harm wireless broadband innovation. 5G technology, which is still in development, is the next generation of mobile wireless broadband that is expected to be capable of supporting 1 Gbps speeds (and potentially speeds as high as 10 Gbps), with the capacity to support the exponential expansion of IoT devices.<sup>21</sup> This future wireless technology holds particular promise for broadband deployments in rural America, where it may not be economically or geographically feasible to widely deploy wireline fiber networks.<sup>22</sup> Given the transformative potential of 5G, the U.S. along with countries like China, South Korea, and Japan are racing to deploy 5G technology. According to one report, China is currently leading the world in 5G readiness, with the U.S. close behind.<sup>23</sup>

The Administration has, in fact, stressed the importance of 5G deployment in the U.S.<sup>24</sup> ARRIS's wireless division, Ruckus, is playing a critical role in helping the U.S. take the lead in 5G wireless network deployment. For example, Ruckus has invested significantly in next-generation wireless technologies such as 802.11ax and 802.11ay, and LTE small cell equipment. And Ruckus products will be critical to meeting the numerous emerging technical requirements for 5G. The

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<sup>21</sup> David Abecassis et al., Analysis Mason, *Final Report for CTIA – Global Race to 5G – Spectrum and Infrastructure Plans and Priorities* (Apr. 2018), [https://api.ctia.org/wp-content/uploads/2018/04/Analysys-Mason-Global-Race-To-5G\\_2018.pdf](https://api.ctia.org/wp-content/uploads/2018/04/Analysys-Mason-Global-Race-To-5G_2018.pdf); see also The Conversation, *What is 5G? The next generation of wireless, explained*, May 17, 2018, <http://theconversation.com/what-is-5g-the-next-generation-of-wireless-explained-96165>.

<sup>22</sup> Expanding high-speed broadband service to rural America has been a key infrastructure priority for the Administration – a goal which ARRIS fully supports. USDA, *Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity* (Oct. 21, 2017), <https://www.usda.gov/sites/default/files/documents/rural-prosperity-report.pdf>.

<sup>23</sup> CTIA, *The Race to 5G*, <https://www.ctia.org/the-wireless-industry/the-race-to-5g> (last visited Aug. 21, 2018).

<sup>24</sup> See White House, *National Security Strategy of the United States of America*, at 19 (Dec. 2017), <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

proposed tariffs would raise the cost of these critical inputs, slowing the adoption of new 5G technologies by Ruckus customers and diverting resources away from Ruckus's investments in 5G.

*Harms to Innovative Wi-Fi Solutions for Closing the Digital Divide.* Ruckus's industry-leading Wi-Fi solutions are a key component in the efforts to bring connectivity to the tens of millions of Americans who still lack basic access to broadband. This includes millions of low-income school age children that find it difficult to complete their school work without a reliable Internet connection at home – i.e., the “homework gap.” Ruckus is proud that its products are used in cities, towns, schools, libraries, and many other public spaces to provide the primary means of broadband access for many Americans. Among these are cutting-edge solutions for Wi-Fi enabled school buses that not only connect students on the way to school but also double as mobile Wi-Fi hotspots that can be used at local parks and parking spots to offer underserved communities with reliable broadband access.<sup>25</sup> The proposed tariffs on Ruckus products could slow efforts to bridge this digital divide and bring millions of underserved Americans online, including in smaller towns and cities that lack the broadband infrastructure of larger urban areas.

**C. USTR Should Provide Sufficient Time for Companies To Make Supply Chain Changes Before the Proposed Tariffs Go Into Effect.**

Given these harms to the U.S. broadband economy, ARRIS hopes that USTR removes broadband equipment from its proposed tariff list. However, if USTR nevertheless does decide to proceed with the proposed additional tariffs, it should provide companies like ARRIS with at least 12 months to make the necessary changes to their supply chains before the tariffs go into effect. ARRIS understands that the proposed tariffs could be implemented as early as September. ARRIS is working diligently to evaluate possible alternate sources. However, shifting operations for ARRIS's highly

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<sup>25</sup> Richard Nedwich, Ruckus Blog, Bridging the Digital Divide with Connected School Buses, July 2018, <https://theruckusroom.ruckuswireless.com/wired-wireless/education/bridging-the-digital-divide-with-connected-school-buses/>.

customized and technical broadband-related products is more complex than for other products covered by the proposed tariffs. Given the nature of ARRIS's products, there may be no viable supply alternatives for certain ARRIS products on the tariff lists. Even where alternatives may exist or may be developed (potentially with significant expense), if the tariffs went into effect immediately, there would not be adequate time to transition over to these new supply alternatives without substantial disruptions to the broadband supply chain.

ARRIS's broadband-related products are highly customized for each of its broadband provider customers, and involve technical specifications unique to each provider's network and operations. Many of these products require specialized manufacturing equipment and highly trained personnel for production. Moreover, given the proprietary provider information that must be programmed onto much of ARRIS's broadband equipment, ensuring the security of this information – with respect to both physically securing servers/data rooms as well as data security – is critical for ARRIS and its customers. Each required step in the process for transitioning supply chain activities with our manufacturing partners (e.g., relocating equipment, obtaining the necessary materials, training personnel, ensuring information security systems are in place, and performing necessary customer testing and certification) takes significant time and incurs substantial costs. For example, the estimated lead time to obtain new supplies of components can range from 20-36 weeks.<sup>26</sup> ARRIS must also subject any new manufacturing operation, once established, to quality assurance safeguards before full production can begin. In light of these requirements, changing manufacturing supplier operations could take at least 12 months. The enormous volume of broadband products affected by the proposed tariffs could further complicate this transition process. ARRIS will not be the only, or even the largest, company that would be seeking alternative suppliers outside of China. ARRIS expects that manufacturing partners will give

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<sup>26</sup> ARRIS provides a sample transition process flow and timeline, which ARRIS applies for each site and each product group separately, in the attached Appendix A.

priority to their largest customers in working to establish new supply channels and in some cases that would mean that ARRIS could be further delayed in its relocation efforts.

If the tariffs went into effect immediately without sufficient time to accommodate the necessary changes detailed above, there would be substantial disruptions to the broadband supply chain. Such disruptions would ultimately harm U.S. broadband employers and U.S. broadband jobs, and weaken U.S. leadership in broadband. Given the critical importance of broadband, USTR should allow sufficient time for companies to make the necessary supply chain changes in order to avoid these disruptions.

## **VI. CONCLUSION**

For the foregoing reasons, ARRIS respectfully requests that USTR reconsider the proposed tariffs for broadband equipment, particularly for such equipment under HTS subheading **8517.62.00.** If USTR proceeds with the proposed additional tariffs, it should provide sufficient time, at least 12 months, for companies to make the necessary supply chain changes. ARRIS appreciates the Administration's efforts to address these important trade issues and hopes to work with USTR to develop solutions that will achieve the Administration's goals, while also protecting U.S. broadband and American consumers and businesses.

Respectfully submitted,

/s/ Jason E. Friedrich

Jason E. Friedrich

Vice President – Government & Regulatory Affairs

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/s/ Lana Uspenskaya

Lana Uspenskaya

Vice President – Trade Compliance

ARRIS

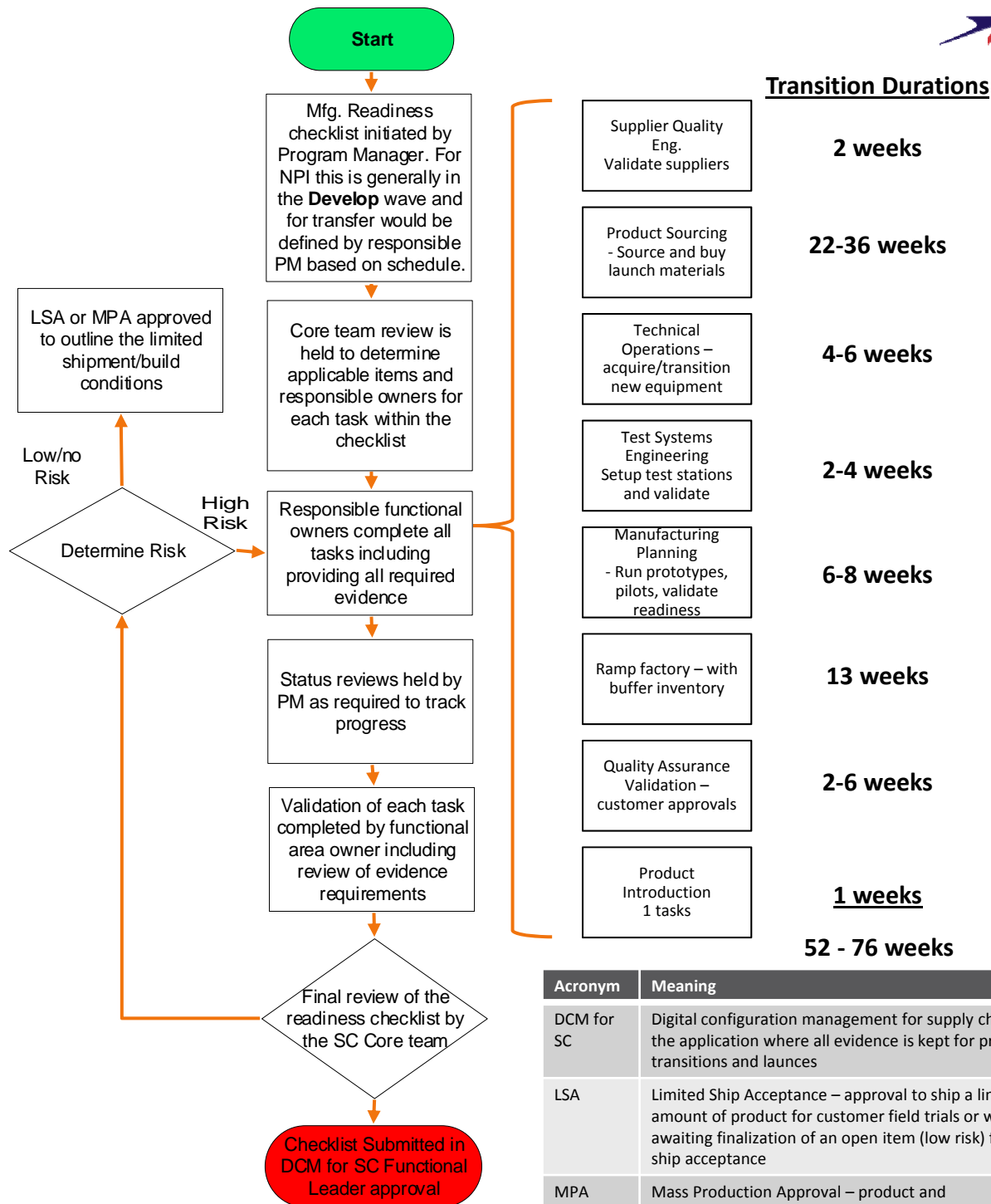
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Suwanee, GA 30024



# **Appendix A**

# Product Transition Process Flow



Acronym	Meaning
DCM for SC	Digital configuration management for supply chain – the application where all evidence is kept for product transitions and launches
LSA	Limited Ship Acceptance – approval to ship a limited amount of product for customer field trials or while awaiting finalization of an open item (low risk) for full ship acceptance
MPA	Mass Production Approval – product and manufacturing location fully approved for mass productions
NPI	New Product Introduction team – also the team involved in product transitions
PM	Program manager – leader for a specific product or factory launch of a product
SC	Supply Chain – the organization responsible for transitioning and manufacturing all product

For every site and product group: up to 28 weeks of manufacturing engineering impact to move a product to a new location not including material acquisition for the new site – lead-time from 20-36 weeks