IN THE UNITED STATES COURT OF APPEALS FOR THE ELEVENTH CIRCUIT

NO. **17-12466-HH**

United States of America,

Appellee,

- versus -

Clifford Eric Lundgren,

Appellant.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF FLORIDA

BRIEF FOR THE UNITED STATES

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United States v. Lundgren, Case No. 17-12466-HH Certificate of Interested Persons

In compliance with Fed. R. App. P. 26.1 and 11th Circuit Rules 26.1 and 28-1, the undersigned certifies that the list set forth below is a complete list of the persons and entities previously included in the CIP included in the appellant's initial brief, and also includes additional persons and entities (designated in bold face) who have an interest in the outcome of this case and were omitted from the appellant's CIP.

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Golder, Randee J.

Greenberg, Benjamin G.

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Mariani, Nicole D.

Microsoft Corporation (MSFT)

United States v. Lundgren, Case No. 17-12466-HH Certificate of Interested Persons (Continued)

Morris, Lothrop

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Statement Regarding Oral Argument

The United States of America respectfully suggests that the decisional process would not be aided significantly by oral argument, because the facts and legal arguments are presented adequately in the briefs and records before this Court.

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Statement of Jurisdiction

This is an appeal from a final judgment of the United States District Court for the Southern District of Florida in a criminal case. The district court entered its judgment against appellant Clifford Eric Lundgren on May 24, 2017 (DE:129). The district court had jurisdiction to enter the judgment pursuant to 18 U.S.C. § 3231. Lundgren filed a timely notice of appeal on May 30, 2017 (DE:140); *see* Fed. R. App. P. 4(b). This Court has jurisdiction over this appeal pursuant to 28 U.S.C. § 1291 and authority to examine Lundgren's challenge to his sentence under 18 U.S.C. § 3742(a).

Statement of the Issue

Whether the district court clearly erred in determining, pursuant to Sentencing Guideline § 2B5.3(b)(1)(B), that Lundgren was accountable for an infringement amount of \$700,000 as a result of his criminal copyright infringement scheme.

Statement of the Case

1. <u>Course of Proceedings and Disposition in the Court Below</u>

In February 2017, a grand jury in the Southern District of Florida returned a 21-count superseding indictment charging appellant Clifford Eric Lundgren and codefendant Robert Wolff with, among other crimes, one count of conspiracy to traffic in counterfeit goods, in violation of 18 U.S.C. §§ 2320(a)(1) and (b)(1)(A) (Count 1), and one count of criminal copyright infringement, in violation of 18 U.S.C. § 506(a)(1)(A) and 18 U.S.C. §§ 2319(a) and (b)(1) and 2 (Count 3) (DE:62).¹

Later that month, Lundgren pled guilty to Counts 1 and 3 pursuant to a written plea agreement with the government (DE:85).

In May 2017, the district court sentenced Lundgren to 15 months' imprisonment, a downward variance from the advisory guideline range of 37 to 46

¹ Lundgren and Wolff also were charged with one count of trafficking in counterfeit goods, in violation of 18 U.S.C. § 2320(a)(1) and (b)(1)(A); one count of trafficking in illicit labels, in violation of 18 U.S.C. § 2318(a)(1)(A)(ii) and (c)(2) and (c)(3)(B); eleven counts of wire fraud, in violation of 18 U.S.C. § 1343; and six counts of mail fraud, in violation of 18 U.S.C. § 1341 (DE:62).

months' imprisonment (DE:129). The court also imposed a three-year term of supervised release and a criminal fine of \$50,000.00 (DE:129).

Lundgren filed a timely notice of appeal (DE:140). He is on bond pending resolution of this appeal.

2. <u>Statement of the Facts</u>

a. Offense Conduct²

In 2011, Lundgren was contacted by his co-conspirator Wolff about producing multiple copies of a Dell Reinstallation CD-ROM containing Microsoft operating system ("OS") software (the "Reinstallation Disc") that could be resold to refurbishers of Dell computers (DE:86:1). At the time, Lundgren was living in China (DE:86:1). Wolff represented that he had purchased an authorized retail copy of a Reinstallation Disc from Dell for \$5.00 (DE:86:1). Wolff provided the Reinstallation Disc to Lundgren, and Lundgren arranged for it to be counterfeited by a Chinese manufacturer (DE:86:1). Lundgren was not authorized by Dell or by Microsoft to reproduce these counterfeit Reinstallation Discs, and he knew that he was not authorized to do so (DE:86:1).

² The description of the offense conduct is taken primarily from the stipulated factual proffer (DE:86; DE:159:35-36), as well as from undisputed portions of the PSI and the sentencing hearing (DE:145; *see* DE:134-2 (sentencing exhibits)). Part 2(e) below contains substantial additional facts derived from evidence elicited during the sentencing hearing.

As part of Lundgren's manufacturing process, labels that purported to be labels authorized by Dell and Microsoft were affixed to the Reinstallation Discs (DE:86:2). These illicit labels falsely represented that the copyrighted software contained on the discs was reproduced with the authorization of Dell and Microsoft, and they were substantially indistinguishable from the labels affixed to authorized Reinstallation Discs (DE:86:2). Lundgren was aware that the unauthorized labels and the unauthorized Reinstallation Discs were identical or substantially identical to the genuine discs (DE:86:2). In an e-mail exchange with Wolff, Lundgren told Wolff that: (1) "You would have to be an expert with a magnifying glass to know and/or see such tiny differences," and (2) "[Wolff] . . . should be able to sell these [Reinstallation Discs] back to anyone whom [sic] is not trying to sell them directly back to Bill Gates" (DE:145:23 (referencing GX6); DE:134-2 (pp. 9-10 of 71)).

In September 2012, U.S. Customs and Border Protection (CBP) officers at San Francisco International Airport detained a shipment of 2,246 Reinstallation Discs that Lundgren had caused to be shipped from China to Wolff's address in Florida, and a second shipment of 1,444 Reinstallation Discs that Lundgren had caused to be shipped from China to Wolff's father's address in New York (DE:86:2). Soon after, the CBP issued a notice of seizure to Wolff's father relating to the 1,444 disc shipment (DE:86:2). The notice stated that CBP believed the discs were

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subject to forfeiture based on copyright violations (DE:86:2). Wolff forwarded a copy of the seizure notice to Lundgren by email (DE:86:2).

Despite having received that CBP notice, Lundgren shipped another package containing 1,598 unauthorized Reinstallation Discs to Wolff's address in Florida (DE:86:2; DE:159:36). All told, between June 2011 and November 2013, Lundgren caused approximately 28,000 counterfeit Reinstallation Discs to be shipped, directly or indirectly, to Wolff (DE:86:3), and Wolff sent approximately \$92,000 in wire transfers and PayPal payments to Lundgren (DE:145:36-41; DE:134-2 (pp. 46-47 of 71); GX16.3; GX16.4).

As part of the government's investigation, Wolff admitted to law enforcement that Lundgren knew he was selling the Reinstallation Discs as authentic to his customers (PSI ¶23). Law enforcement also recovered email and text message communications between Lundgren and Wolff in which Lundgren discussed the manufacture and shipment of the unauthorized Reinstallation Discs and celebrated the "steady income for the next year to come" that he and Wolff would receive as the "only ones capable of factory grade production" (PSI ¶22, 24-26, 30).

b. The Pre-Sentence Investigation Report

In anticipation of sentencing, the United States Probation Office prepared a Pre-Sentence Investigation Report (PSI). The PSI set Lundgren's base offense level at 8 pursuant to Guideline Section § 2B5.3(a), which applies to criminal copyright and trademark infringement (PSI ¶38).

The PSI then recommended a fourteen-level increase in Lundgren's offense level to reflect the "infringement amount" under Section § 2B5.3(b)(1)(B) (PSI ¶39). That subsection provides that, if the "infringement amount" exceeds \$6,500, the offense level should increase by the corresponding number of levels in the fraud loss table in Section 2B1.1. USSG § 2B5.3(b)(1)(B). The guideline commentary in Note 2(A) further describes how to calculate the infringement amount, and it instructs to use the "retail value of the infringed item, multiplied by the number of infringing items" if the case involves any one of eight enumerated circumstances. USSG § 2B5.3(b)(1), cmt. 2(A).³ As relevant here, one such circumstance is where "[t]he infringing item (I) is, or appears to a reasonably informed purchaser to be, identical or substantially equivalent to the infringed item; or (II) is a digital or electronic reproduction of the infringed item." *Id.*, cmt. 2(A)(i).⁴

³ The term "retail value" is defined as the "retail price of that item in the market in which it is sold." USSG § 2B5.3, cmt. 2(C).

⁴ A separate provision in the guideline commentary covers any circumstance other than the enumerated circumstances listed in Note 2(A). USSG § 2B5.3, cmt. 2(B). In those cases, Note 2(B) instructs to use the "retail value of the *infringing* item [as opposed to the *infringed* item] multiplied by the number of infringing items." *Id.*, cmt. 2(B) (emphases added). Lundgren, the government, and the district court agreed at sentencing that using the retail value of the infringed item in Note 2(A) applied to Lundgren's infringement amount (DE:145:8-13; DE:106:2-6), and

In this case, the PSI calculated an infringement amount of \$700,000 to reflect the \$25 per-unit price at which Microsoft made available genuine Microsoft OS software to computer refurbishers as part of its Registered Refurbisher Program (PSI ¶31 (multiplying \$25 by 28,000, which is the number of counterfeit Microsoft reinstallation discs that Lundgren caused to be shipped to Wolff as part of the conspiracy); GX18 (sealed pricing table (DE:145:61; DE:146:19)).⁵ That \$700,000 figure triggered a 14-level increase in offense level under the cross-referenced loss table in Section 2B1.1 (PSI ¶39). And, because the offense involved the manufacture or importation of an infringing item, Lundgren's offense level increased by an additional two levels pursuant to Section § 2B5.3(b)(3)(A) (PSI ¶40).

Finally, the PSI recommended a three-level decrease in Lundgren's offense level to reflect his timely acceptance of responsibility (PSI ¶¶46, 47). All of that yielded a total adjusted offense level of 21 (PSI ¶48), which when combined with

Lundgren does not challenge the applicability of Note 2(A) on appeal.

⁵ As detailed below, *infra* pp. 27-28, under the Registered Refurbisher Program, any commercial entity that sells refurbished computer equipment in the secondary market can apply to Microsoft for a license to put genuine Microsoft OS software on its refurbished computers. The price at which registered refurbishers can purchase Microsoft OS Software through the RRP is less than the price at which Microsoft OS software is sold at standard retail locations (GX18).

Lundgren's criminal history category of I (PSI ¶53), produced an applicable advisory guideline range of 37 to 46 months' imprisonment (PSI ¶110).

c. Lundgren's PSI Objections and Motion for Downward Variance

Lundgren filed three objections to the PSI (DE:108). First, Lundgren claimed that the PSI misstated the nature of the infringed item, contending that the infringed item was not "counterfeit Microsoft software" as stated in the PSI but rather "unauthorized Dell Reinstallation disks containing a counterfeit mark" (DE:108 ¶1). Second, Lundgren objected to the \$700,000 infringement amount, and he referenced an upcoming joint hearing to determine that valuation (DE:108 ¶2). Lastly, Lundgren objected to the PSI's determination that Microsoft was a "victim" within the meaning of the Mandatory Victim Restitution Act (DE:108 ¶3). He claimed that "[t]he victim, if any, is Dell," and he argued that, even assuming that Dell or Microsoft qualified as "victims" for purposes of restitution, neither had suffered any pecuniary loss (DE:108 ¶3).⁶

Separate and apart from his PSI objections, Lundgren filed a sentencing memorandum and an accompanying motion for a downward variance to a non-incarcerative sentence (DE:117). He set forth his view of the 18 U.S.C. § 3553(a)

⁶ Restitution is not at issue in this appeal, because no restitution was ordered by the district court in light of CBP's seizure of the pirated discs prior to their dissemination into the market (DE:146:14-16).

factors, and he argued that the 37-to-46 month advisory range overstated the seriousness of the offense and did not account adequately for his individual characteristics as a business owner, "philanthropist social entrepreneur," and "respected leader" in the field of electronic recycling (DE:117:1, 5-6). He also characterized his offense as "an aberrant episode" that he committed when he was young (DE:117:1), and he said that he had matured and grown since that time (DE:117:9).

On the question of harm, Lundgren argued that the advisory range "substantially overstate[d] the actual pecuniary harm to the copyright and trademark owner," because licensed users of Microsoft software can obtain Reinstallation Discs for free from Dell or by downloading it at no cost from various websites (DE:117:10). And, he claimed that although he knew that he was conspiring with Wolff to sell counterfeit Reinstallation Discs unlawfully to refurbishers—and although "the unauthorized disks contained software that was identical to the authentic disks"—he did not think there would be a financial loss to Dell or Microsoft, because licensed users of Microsoft software can obtain replacement reinstallation discs from Dell or other websites for free, and he thought he was simply helping consumers who did not know about, or did not know how to access, the free software downloads (DE:117:4-5).

d. Government's Response to Lundgren's PSI Objections and Sentencing Memorandum

The government responded to Lundgren's PSI objections (DE:112). The government explained that it would establish through testimony and other evidence that, (1) contrary to Lundgren's suggestion, the infringed item is "counterfeit Microsoft software" (DE:112:1)—not "unauthorized Dell Reinstallation Discs containing a counterfeit mark" (DE:108 ¶1); (2) the infringement value of each Reinstallation Disc is \$25, which represents the per-disc price, at the low end, at which Microsoft licenses its software to registered refurbishers as part of its Registered Refurbisher Program (RRP) (DE:112:1 (referencing PSI ¶31)); (3) the Reinstallation Discs "contained unauthorized Microsoft software that was protected by valid copyrights and contained Microsoft labels that were protected by trademarks" (DE:112:2); and (4) Microsoft was properly classified as a victim for restitution purposes (DE:112:2).

The government also filed a sentencing memorandum (DE:106). The memorandum noted the extensive and long-term nature of the conspiracy, which involved the manufacture and importation of thousands of discs containing Microsoft's intellectual property (DE:106:7). The government also expanded on the significance of the copyright and trademark protections, noting (1) the important role of the courts to protect intellectual property rights (DE:106:1); (2) the multi-

billion-dollar losses suffered by American companies each year at the hands of international trade in pirated goods (DE:106:7); and (3) the many additional consequences to the economy from such counterfeiting, including lost sales, lost brand value, reduced innovation, and losses to customers who purchase counterfeit goods (DE:106:7). Finally, the government disputed Lundgren's claim that Microsoft suffered only minimal pecuniary injury, noting that Microsoft had lost the sale of its software as a direct consequence of Lundgren's actions, and further noting that the counterfeit discs trafficked by Lundgren appeared to a reasonably informed purchaser to be indistinguishable from the genuine product (DE:106:5).

Ultimately, in accordance with its commitment in the plea agreement (DE:85 $\P7$), the government recommended a sentence of 18 months' imprisonment—a downward variance from the 37-to-46 advisory guideline range (DE:106:7).⁷

e. Sentencing Hearing

On May 22, 2017, the district court held the first of two sentencing hearings (DE:145). The first hearing was an evidentiary hearing on the infringement amount during which four witnesses testified (DE:145), *infra* pp. 12-34, and the second

⁷ Lundgren's co-conspirator, Wolff, cooperated with the government and was sentenced to six months' home confinement and four years' probation (DE:142). As part of his cooperation, Wolff made controlled calls to Lundgren at the direction of law enforcement, sent monitored email and text messages to Lundgren, and consented to a search of his computer (PSI ¶¶20-30). Wolff did not appeal.

hearing concerned the parties' arguments in support of an appropriate sentence based on the 18 U.S.C. § 3553(a) factors (DE:146).

At the start of the first hearing, Lundgren reiterated and expanded upon his earlier written objections to the PSI (DE:145:9-12). In his view, absent a license and product key that could be used to "activate" the Microsoft OS software, the Reinstallation Discs had no value or had a "negligible" value (DE:145:9; DE:145:12 ("If you take that disc and try to install it on the HP computer, you cannot get through unless you prove you have a license to install it on the HP computer.")). Lundgren did not dispute that the use of the retail value of the "infringed item" was the appropriate formulation within Note 2(A) to Section 2B5.3(b)(1) (DE:145:9, 201-202). But, he claimed that, because the Reinstallation Discs did not have a product key, the infringement amount under Section 2B5.3(b)(1)(B) really should be zero, or close to zero—not \$700,000 (DE:145:9).

The government countered that the appropriate retail value was \$25 per disc, which represented the lowest amount at which an authorized refurbisher can purchase Microsoft OS software from Microsoft through the RRP (DE:145:197-200). That \$25 figure, the government added, reflected the undisputed fact that the conspiracy to which Lundgren and Wolff had pled guilty was a conspiracy to sell unauthorized Reinstallation Discs to computer refurbishers (DE:145:199-200; *see* DE:86:1).

i. Special Agent Daniel Richichi

Special Agent Daniel Richichi of the Department of Homeland Security testified and authenticated the seized evidence in the case, including various copies of Microsoft XP and Windows 7 counterfeit Reinstallation Discs (DE:145:14-15, He also testified about various emails found on Wolff's computer, 34-35). including one email sent from Lundgren to Wolff with the following subject line: "Re: Hello Bob, Update Please? WHAT IS GOING ON? MY REPLIES ARE IN "HIGHLIGHT" BELOW..." (GX6; DE:134-2 pp. 9 of 71; DE:145:20-25). As explained by Agent Richichi (DE:145:20-25), Lundgren was responding to an earlier email sent to him by Wolff in which Wolff described a customer's complaints with the Reinstallation Discs, including the use of the letter "o" instead of a zero on the IFPI number (a particular code on the disc), and the absence of a period after the term "U.S.A." In Lundgren's response, which Lundgren included within the body of the original email, Lundgren wrote:

(These issues are VERY VERY minor... You would have to be an expert with a magnifying glass to know and/or see such tiny differences...) You must have been trying to supply these units to Amazon directly or someone whom is an expert in this field... Anyone whom buys these would not notice a O or 0 when it comes to a font this size "U.S.A. (or) U.S.A" C'mon Bob, you should be able to sell these units to anyone whom is not trying to sell them directly back to Bill Gates. If they are not perfect, it is because the unit that we received from the USA retail on Ebay was not perfect... We made an identical copy of said unit from the same factories that manufacture for Dell..

If you can retain this buyer -I am sure that I can get him another batch with a "." After the A and 0 instead of O. hehe

But for now – Please sell some of these units... You MUST have some other buyer's for this product – and if you do not, then find some. It has been months and I have not seen the return that I was expecting to use for my India project buddy...

Don't leave me hanging on this one.. Work hard and get these moved to any other buyer. No normal company or buyer will notice such issues and every month that you spend sitting on this product is another month XP get's [sic] older and my assets become worthless... Come thorugh [sic] on this one Bob.. Get it done... Make it happen... Make me proud so that our business can grow and we can keep WINNING!

The choice is yours but no matter what you choose. Keep in touch!

Thanks,

E

(GX6 (italics added but all other punctuation in original); DE:134-2 pp. 9-10 of 71; DE:145:20-25).

Agent Richichi also testified about three other emails that Lundgren sent to Wolff. In the first email, Lundgren discussed traveling to the factory in China where the molds of the discs were being made (DE:145:27-29; GX8 (DE:134-2 p. 15 of 71)). He touted that he and Wolff "w[ould] be [the] only ones capable of factory grade production" once they got the molds for Windows XP3 and Windows 7, and he noted that that would "ensure a steady income for the next year to come!" (GX8).

In the second email, Lundgren wrote to Wolff regarding certain missing boxes that Customs had seized, and he coached Wolff on what to say and how to act if Customs called (GX9 (DE:134-2 pp. 16 of 71); DE:145:29-30). He instructed Wolff, for example, to "play stupid" and to "[a]ct upset" if Customs called (GX9). And, he told Wolff to tell Customs that he ordered the product "from an asset management broker overseas"; "the product was guaranteed to be real"; and he [Wolff] "paid a very high price for it." *Id*.

In the third email, Lundgren responded to Wolff regarding the missing boxes by saying that "Customs can't tell the difference and therefore is not legally allowed to hold them. hehe," and by noting that he "look[ed] forward" to continuing his business relationship with Wolff, because he had "many more products" that he wanted to send to Wolff from India and China (GX10 (DE:134-2 p. 19 of 71); DE:145:31).

ii. Jonathan McGloin

Jonathan McGloin testified next as an expert witness for the government (DE:145:42-153). McGloin works as an Operations Program Manager for Microsoft in its OEM Operations Division (DE:145:42, 51). As detailed in the sections below, McGloin explained the way in which Microsoft licenses and protects its software, and he discussed the functionality of the counterfeit Reinstallation Discs that Lundgren and Wolff trafficked. The court made several findings on the record

that it found McGloin's testimony to be "credible and worthy of belief" (DE:145:212, 214-215).

a. Licensing of Microsoft OS Software, Security Features, and Reinstallation Discs Generally

McGloin described the relationship between Microsoft and the Original Equipment Manufacturers (OEMs) to whom Microsoft licenses its proprietary software (DE:145:42-43). An OEM "is a company that produces hardware devices, PC's or other related computer hardware" (DE:145:42). In order for OEMs to sell computers containing Microsoft OS software, the OEMs enter into a direct licensing agreement with Microsoft (DE:145:42-43). This direct licensing agreement permits OEMs to pre-install a copy of Microsoft's OS software onto each new computer, creating a perpetual license that accompanies that particular device (DE:145:43). Hence, if the purchaser of that original computer sells it to someone else or gives it away, the Microsoft OS software license "travels with" the device to the new end user in perpetuity (DE:145:118-119; *see* DE:145:57, 144).

One of the conditions of the Microsoft-OEM licensing agreement is that OEMs agree to provide a "recovery solution" to the end user in the event of a hardware malfunction (DE:145:43-44). That recovery solution can come in different forms, including, as relevant here, a Reinstallation Disc that contains an "exact copy" of the original Microsoft OS software that comes pre-installed on the computer as sold by the OEM (and it is the same software both visually and functionally as the software that Microsoft sells at retail stores like Best Buy) (DE:145:43-44, 71-72).⁸ OEMs are prohibited from selling Reinstallation Discs separately in a commercial means, and OEMs must ensure that such discs are given only to those who lawfully purchased or acquired a Microsoft software license (DE:145:44-45, 54-56, 81, 131-132).

Furthermore, to protect its intellectual property and to secure its supply chain, Microsoft has a series of mandatory rules governing the manufacture of reinstallation discs, including, for example, the requirement that discs come stamped with different alphanumeric codes (DE:145:73-80). These codes are very small and denote different types of information, including the origin of the disc (DE:145:75-78). And, if someone else put one of these codes on a counterfeit disc, that would be "very significant," because "it would be an attempt to mimic a genuine disc" (DE:145:77). For this reason, Microsoft conducts periodic security audits on the vendors and replicators involved in the manufacture and distribution of reinstallation

⁸ (DE:145:71-72 ("A. An exact copy of what was preloaded on the computer is contained on the disc. Q. So it is in effect, as for purposes of the master software image, the same as you get with the retail version, at least that portion of it? A. That portion of it, the Microsoft software portion of it."); DE:145:111-112 (McGloin testifying that the software on a reinstallation disc looks the same and performs the same as the master Microsoft software image that someone would buy if they walked into Best Buy and purchased a retail version of Microsoft software)).

discs, and it employs a digital crimes team that specializes in detecting potentially counterfeit products (DE:145:74-80).

McGloin also testified about "certificate[s] of authenticity" (DE:145:45). A certificate of authenticity, or a "COA," is a paper-based label that "contains security features, much like a bank note or [a] passport that is adhered to [stuck to] a device" (DE:145:45). During the conspiracy period, COAs typically contained a "product key" that could be used to activate the Microsoft OS software and verify the authenticity of the software license (DE:145:47). Importantly, however, an end user who purchased a computer with pre-loaded Microsoft OS software would not need the product key to activate the software (DE:145:47-48). This is because Microsoft allows devices sold by large OEMs like Dell to "bypass activation," which means that an end user can start operating the computer without having to enter a product key (DE:145:48 ("COURT: So, if somebody bought a Dell laptop, and got it home, they plug it in and operate it? McGLOIN: Yes. COURT: And the end user does nothing else? McGLOIN: Correct. It gives the end user a nice experience, it works. THE COURT: It works.")).

What this creates, McGloin noted, is something called an "unconsumed" product key—i.e., a product key that goes unused, so to speak, because an end user never has had to enter it into the system, and hence Microsoft has not registered the use of that key as an "activation event" (DE:145:50-54). This "unconsumed"

product key exists in "around 98 percent" of cases, McGloin testified, where the software was pre-installed by the OEM; there has not been a hardware failure; the end-user has not had to enter the product key; and Microsoft has not registered the use of that product key as an activation event (DE:145:50-54).

In light of the vast number of unconsumed product keys, it is "very common," McGloin explained, for computer refurbishers unlawfully to remove COAs with unconsumed product keys from one device and stick them on another device as a way to grant a Microsoft software license impermissibly to an otherwise unlicensed device (DE:145:51). Indeed, there "is quite a large market for obtaining product keys from other devices and reselling them through a particular market, on Ebay or other means," because they "[can] be used . . . in the refurbished market as a genuine license" (DE:145:81-82). And, as relevant here, these unconsumed product keys can be used unlawfully to activate and use pirated versions of Microsoft OS Software like the Microsoft OS software contained on Lundgren's counterfeit Reinstallation Discs:

COURT: [H]ave you experienced that knowledgeable people, realizing this, actually do detach the label and then use it on a new device, a refurbished device or something else?

McGLOIN: Yes, Your Honor, that happens all the time.

COURT: When that happens, what occurs? In other words, assuming they have the reinstallation feature or reinstallation disc, does that just mean the software gets installed and up and running? McGLOIN: It will work and perform to the end customer as a genuine authorized copy, yes, sir.

COURT: Does Microsoft recognize that as a pirating of its product?

McGLOIN: Yes, the licensing is for the device.

COURT: For the machine?

McGLOIN: Correct.

(DE:145:52-53; see DE:145:56-57).

b. The Similarity and Functionality of Lundgren's Counterfeit Reinstallation Discs as Compared with Genuine Discs

McGloin also testified about the visual and functional similarity between the counterfeit Reinstallation Discs that Lundgren trafficked versus genuine Reinstallation Discs.

As to their visual similarity, McGloin noted that Lundgren's counterfeit discs were "visually identical" to that of a genuine reinstallation disc (DE:145:88-89). McGloin reiterated this visual-similarity point later in his testimony, noting that, unless he "looked at the codes and analyzed th[em] forensically," there was nothing visually on the counterfeit discs that would tell him they were illegitimate (DE:145:92-94; *see* DE:145:99-100 ("Yes, visually it [the counterfeit Reinstallation Disc] looks like it should and contains all of the information as we saw from the [genuine] template.")).⁹

⁹ See GX6 (Lundgren writing to Wolff stating that any issues as to the coding on the

As to the functional similarity of Lundgren's counterfeit Reinstallation Discs, McGloin described a series of test installations that he performed demonstrating that Lundgren's counterfeit Reinstallation Discs could be used, without a license or product key, to install functional Microsoft OS software onto a computer (DE:145:87-106).

In the first test, McGloin used one of the counterfeit discs to install a counterfeit copy of Windows XP onto a Compaq Presario computer (DE:145:90-100). As McGloin explained, the installation process was completed successfully; the software started; and it looked identical to a legitimate version of Windows XP (DE:145:92-93). When asked by the district court how the counterfeit Reinstallation Disc's installation process compared to what a user would see when using a legitimate Reinstallation Disc, McGloin stated that the process was "[e]xactly the same," and that "[a user] would not know any different" (DE:145:92-93 ("COURT: How does this [counterfeit disc] compare with yours in terms of what you would see had you been using a legitimate disc? McGLOIN: Exactly the same. COURT: Are they indistinguishable? McGLOIN: You would not know any

counterfeit discs are "very, very minor," that a person "would have to be an expert with a magnifying glass to know and/or see such tiny differences," and that he (Wolff) "should be able to sell these units to anyone whom [sic] is not trying to sell them directly back to Bill Gates").

different."); *see* DE:145:97 (noting that the installation process looked "authentic" and gave an impression that it was "genuine software")).

McGloin also testified that, when he ran the test with the counterfeit XP Reinstallation Disc, he was not prompted to enter a product key at the point in the installation process where he would have expected such a prompt (DE:145:94). Later, once the software was fully installed, McGloin saw a message in the background noting that he had "30 days to activate effectively"—but he explained that the operating system would continue to function, with no reduced functionality, even after the end of that 30-day period, and even if the user did not enter a license number or a product key (DE:145:95-97). This is because, as McGloin noted, Microsoft Windows XP and Microsoft Windows 7 did not have a "functionality step" (DE:145:95-97). In other words, Microsoft Windows XP and Microsoft Windows 7 OS would "nag" the user to enter a product key, and the user would not receive software updates from Microsoft without a product key, but nevertheless the operating system would continue to function, even without a product key (DE:145:95-98; see DE:145:102 ("A. It displayed this message, but it continued to work."); DE:145:96 (COURT: "[I]t has all of the indicators, impressions of legitimacy. McGLOIN: Yes, Your Honor.")).¹⁰

¹⁰ On other versions of Microsoft OS software that are not at issue in this appeal, such as Windows Vista, Microsoft *did* include a functionality step, which

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In addition to the Windows XP test, McGloin also testified that he ran two additional tests using one of Lundgren's counterfeit Reinstallation Discs to install Microsoft Windows 7 Professional onto a Lenovo tablet (DE:145:100-105).

In the first of these Windows 7 tests, McGloin typed in the product key that was listed on the COA on the back of the Lenovo, and the software recognized it (DE:145:104-105). That meant, in effect, that McGloin had used Lundgren's counterfeit Windows 7 Reinstallation Disc together with an "unconsumed" product key on his old computer to obtain a "fully activated device"—with no prompts to enter a product key, and with all of the applicable Microsoft updates (DE:145:104-105 ("Yes, this is a fully activated device, and there would be no problems and you get all the updates."); *see* DE:145:148-149 (further explaining how he was able to use an unconsumed product key from an old device to arrive at the same functionality using Lundgren's counterfeit Reinstallation Disc)). And, he had been able to do so even though the counterfeit software on the counterfeit Reinstallation Disc corresponded to a Dell device, not a Lenovo (DE:145:104).

In the other Windows 7 test, McGloin again managed to use the infringed copy of Windows 7 to install a functional version of Microsoft 7 without ever entering a product key (DE:145:100-105). As with the XP test, the "installation

presumably would have affected the functionality of software without a product key (DE:145:95-96).

process started up and proceeded to go," and the computer operated as he would have expected it to (DE:145:100-101). McGloin did receive prompts for a product key and a message signaling that the product key was invalid (although he had not entered a product key), but, as noted, the software continued to work in a manner indistinguishable from the genuine installation process (DE:145:102-103).

After hearing the above testimony, the district court commented as follows:

COURT: [I]f I understand your [McGloin's] testimony, if anyone looked visually at the disc, your testimony is, as I understand it, it is indistinguishable from a legitimate disc, and following through on that, if you ran the contents, the programs, they, too, are indistinguishable from what one would see if you had a legitimate reinstallation device. Is that the thrust of what you are saying?

McGLOIN: That is correct.

COURT: Okay. The only fly in the ointment, if it is at all, is this business where the activation prompt occurs, and the fact that it subsequently repeats itself, but you just told us if you happen to have a device that has an activation key on it that seems to be good enough, you could silence the prompt.

McGLOIN: I did perform another test subsequent to this, and didn't enter the product key, and it performed and hasn't prompted me at all.

(DE:145:105-106).

On cross-examination, Lundgren pressed McGloin on the functionality of

Microsoft OS software installed without a product key, and McGloin confirmed his

earlier testimony (DE:145:115-116, 127-131, 141-142). He stated, for example,

that Lundgren's counterfeit Reinstallation Discs installed "full version[s]" of

Microsoft OS software, with the same "functionality" as retail versions of Microsoft OS software minus certain additional services like updates and services from Microsoft (DE:145:115-116; *see* DE:145:127).

Similarly, when Lundgren's counsel suggested that the Microsoft software was not fully operational without a product key, McGloin said no, stating:

McGLOIN: It installed the software, I am able to use it, I could connect to the internet, I could continue to use it.

Q: It is not equivalent to the software you sell for \$295?

McGLOIN: [It has the] [s]ame functionality in terms of the software.

(DE:145:141-142).

Later, when Lundgren pressed McGloin on what would happen after the 30day activation period provided for in Microsoft's end user licensing agreement, McGloin further explained that he would still be able to use the operating system after that period (DE:145:128-131). He acknowledged that the *written* terms of the license agreement give a 30 days to activate the software, but he made clear that, in practice, the computer would not shut down after 30 days, and the user still could use the software (DE:145:130). In other words, the product key is there to verify that a genuine license has been installed—because only licensed end users who pay for the software are lawfully entitled to use it—but in reality, the computer will allow the user to continue using the software without a product key (DE:145:130 ("A. It will actually allow you to use this, despite what it says. It doesn't completely shut down or prevent you from using it."); DE:145:130 ("There are genuine cases where a customer may have a problem with activation, we [Microsoft] don't want to shut down the operability of the device.")).

On redirect, McGloin again confirmed that Lundgren's counterfeit Reinstallation Discs could be used to install Microsoft OS software onto an unlicensed device, thereby resulting in the loss to Microsoft of a sale of genuine Microsoft OS software (DE:145:149). Specifically, McGloin confirmed that a user could use Lundgren's counterfeit Microsoft OS software and "have the same functional operating system[,] even on a different kind of computer" (DE:145:149).

c. Microsoft's Registered Refurbisher Program and the Lawful Market for Microsoft OS Software

McGloin also testified about the various means through which Microsoft OS software can be acquired lawfully. As noted, he stated that Microsoft has direct licensing agreements with OEMs under which OEMs pay Microsoft for the right to install Microsoft software on new devices. *Supra* pp. 15-16. That OEM license is for pre-installation on new devices, which means that the license is attached to the device in perpetuity, and so an original end-user lawfully can sell or give the computer away (including the Reinstallation Disc that comes with it), because the license travels with the machine (DE:145:43, 57, 119, 144).

Under this framework, it is not possible for someone simply to go to Dell and purchase Microsoft OS software, because Dell's permission to license the software is only for pre-installation on new devices (DE:145:43, 66-67). And, because the Reinstallation Disc "has to be sold with the device," an OEM cannot sell Reinstallation Discs separately in a commercial means:

A. Microsoft does not allow OEM's to sell recovery discs separately in a commercial means. It is not viewed as a standard on the product, it has to be sold with the device.

Q. An OEM can't say I have an extra 30,000 recovery discs, I am going to sell them to Mr. Lundgren?

A. That is not allowed.

(DE:145:81; see DE:145:177-178).

But, if the original end user loses the Reinstallation Disc that came with the new device, then the user can contact the OEM directly, and the OEM is authorized as part of its license with Microsoft to provide a replacement reinstallation disc or to allow the user to download the software for free through an OEM-provided download service—but only if the OEM first ensures that the computer originally had a genuine license installed (DE:145:54-56, 132, 143-145).

In addition to having direct licensing agreements with OEMs, McGloin also testified about Microsoft's Registered Refurbisher Program (RRP) (DE:145:51, 58-60). Under the RRP, any commercial entity that sells refurbished computer equipment in the secondary market can apply to Microsoft for a license, at a reduced price, to put genuine Microsoft OS software on its refurbished computers (DE:145:60, 83-84, 134; *see* DE:145:146 ("Refurbishers want to sell it with an operating system on it. People don't want to buy a device if you don't have an operating system on it.")). Like OEMs, registered refurbishers are required as part of its license agreement with Microsoft to provide a recovery solution, like a Reinstallation Disc (DE:145:135), and that disc, as noted, contains an identical copy of the Microsoft OS software (DE:145:71).

Take the following example. A large corporation like American Airlines or Chase Bank may wish to sell large numbers of its old computers to a computer refurbisher (DE:145:58-60, 134). Before it does so, the corporation will almost always "wipe" the hard drives of those computers, which will include deleting the OS software (DE:145:58-59, 83). At that point, the computers have no software, and there are only a limited number of ways through which Microsoft OS software can be put back onto them: (1) the refurbisher can, without joining Microsoft's RRP, use the reinstallation discs that came with the computer originally (if it has them) in order to install the operating system (DE:145:121-122, 133-134); (2) the refurbisher can go to a retail store and buy individual copies of Microsoft OS Software at a higher retail price; (3) the refurbisher can purchase a commercial license; or (4) the refurbisher can join Microsoft's RRP and get access "at a lower cost to refurbish the device and put on a new license, a new copy of the software" (DE:145:60; see DE:145:67-68, 134).

McGloin also testified about the various "royalty rates" at which Microsoft sells it OS software, including through the RRP (DE:145:61-64). He referred in particular to Government Exhibit 18, which is a pricing table organized by type of customer: large OEM, small OEM, large refurbisher, small refurbisher, and retail customer (GX18). It reflects, among other things, the higher price at which Microsoft sells its software at retail stores versus the discounted rates that Microsoft charges refurbishers through its registered refurbisher program (DE:145:61-66).

Per Mr. McGloin's estimates, the lowest amount that Microsoft charges small registered refurbishers is \$25 per unit (GX18; *see* DE:145:218).¹¹ Lundgren did not challenge McGloin's testimony that Microsoft sells its OS software to registered refurbishers at \$25 per unit, and he does not do so on appeal.

¹¹ For Windows XP, the refurbisher price is \$25 per unit, and for Windows 7, it is \$40 (GX18). The government made an accommodation to recommend the use of the lower \$25 figure for all 28,000 Reinstallation Discs, however, and the court accepted that accommodation, noting that it was "beneficial to the Defense" (DE:145:217-218).

d. Illegal Market for Microsoft OS Software

McGloin also testified about the substantial impact to Microsoft caused by the type of piracy in which Lundgren was engaged (DE:145:113-114). He noted, for example, that counterfeiting is a "major competitor" and a "big business" (DE:145:80), and he described the "black market for illegitimate or counterfeit Microsoft software" as "very vibrant":

There is a huge demand for free or low cost software. People like things at reduced prices, there is a large market out there for lower cost software.... It [the black market] displaces the sale of a genuine software license, so if you purchase the license on the black market it means you haven't purchased a new device with a new license from Dell or you haven't purchased a new license from Microsoft, it is taking a sale away from a genuine license.

(DE:145:84).

McGloin also described how Microsoft "employ[s] a team to police" such counterfeiting (DE:145:80), because counterfeiting causes a "loss of revenue" and also "a diminishment of the brand and reputation" (DE:145:113-114).

iii. Glenn Weadock

After McGloin testified, Lundgren called Glenn Weadock as a defense expert (DE:145:154-184). Weadock is an IT consultant who specializes in training related to Microsoft OS software (DE:145:154, 160-163). In his opinion—an opinion deemed "not credible" or "worthy of belief" by the district court (DE:145:215)—the value of the Reinstallation Discs trafficked by Lundgren was "zero or near zero,"

because, as he claimed, the Reinstallation Disc "does not come with a license," and the only way a user can legitimately use the software is with a valid license (DE:145:164-167; DE:145:167 ("Q. In your opinion, without a code, either product key or COA, what is the value of these reinstallation discs? A. Zero or near zero.")).

Weadock further stated that the software Lundgren illegally reproduced can be downloaded for free by licensed users from Microsoft's website as well as many OEM websites (DE:145:167-168, 175-176). In Weadock's view, because Microsoft and Dell offer licensed end users the ability to download the software for free, the actual software itself (absent a license) has no value (DE:145:167-168).

Weadock also testified about the functionality of Microsoft OS software without a valid license (DE:145:165-167). In his opinion, the user does not get the functionality of the software without proving that he has a valid license (DE:145:165-171); in the case of Microsoft XP, the "system will not function" or "boot up" after 30 days without a valid license, he claimed, and although Windows 7 is "more tolerant," there still would be "degradations of functionality" (DE:145:170-172 (noting absence of security updates and also a legend that appears on the screen saying the software is not genuine)).

When Weadock was asked why someone would pay for a Reinstallation Disc of the sort trafficked by Lundgren if it has no value, he responded that it carries a "convenience value" for customers who are not "comfortable downloading software through the internet," but he described that value as "low," and he said that "[i]t would not be anywhere near the retail value of the product when you go into Best Buy and purchase a reinstallation version" (DE:145:172).

On cross-examination, the government asked Weadock "where [one] could download 16,000 versions of [the reinstallation software] in 2011" (DE:145:177). Weadock responded: "[i]f I bought 16,000 computers from Dell, I could go to their website and provide each of the service tag numbers for each of the computers and download all of those copies" (DE:145:177). When the government asked more specifically if someone "could get 16,000 versions of the recovery disk" without buying 16,000 computers, Weadock said no, adding: "If you want a reinstallation CD, you have to provide a serial number or [a] service tag number, some proof you licensed that computer for that operating system" (DE:145:178).

On redirect examination, Weadock reiterated his opinion that the counterfeit Reinstallation Discs would have value only if coupled with a license or product key (DE:145:178-179). The district court then pressed Weadock as to his zero dollar valuation, noting in the following exchange that the defendant spent \$80,000 on a criminal enterprise to create counterfeit discs he now argues have no value (DE:145:180).

COURT: What is your view why somebody is going to China to have 16,000 counterfeit discs produced? What do you think they are doing? Is this a charitable thing? I don't mean to be—what is your take on

this? You say it has no value, it might be convenient for the customer. What do you think is going on? They spent \$80,000, if I understand one of the exhibits, to produce this. What do you think was happening?

WEADOCK: I can't speak for the Defendant, Your Honor.

COURT: But you need to speak. You came in and told me, in your expert opinion, these have no value at all, which I understand that.

WEADOCK: Right.

COURT: Here is clearly a criminal enterprise, these gentlemen have pled guilty to crimes, and we know from the exhibits—again, I don't have it right in front of me, but looking at the monies from Chase and so on, it is about \$80,000. What is your sense as to what was being done?

WEADOCK: My sense is that the discs have value as a convenience to the end user who will be able to install Windows on those computers.

(DE:145:179-180).

The district court also asked Weadock whether he denied that there was a market

for the counterfeit Reinstallation Discs that Lundgren illegally reproduced

(DE:145:182-183). Weadock acknowledged that "obviously there had to be some

market for the enterprise," and that the Reinstallation Disc "allows [a user] to easily

install Windows" (DE:145:183). But, Weadock continued to opine that the discs

have "zero or little, zero or low [value]" (DE:145:184-185).

iv. Brent Kelley

As a final witness, Lundgren called Brent Kelley, CEO of Power On Computer Services, to testify regarding the secondhand computer market and Reinstallation Discs (DE:145:185-194). Kelley testified that he acquires used computers from large companies, wipes them of their existing OS software, and resells them—and sometimes receives the Reinstallation Discs that came with the computers originally (DE:145:187-190). He added that the inclusion of Reinstallation Discs with the purchase of a refurbished computer is a matter of customer satisfaction or convenience (DE:145:189). But, he made clear that his company does not go out and buy reinstallation discs, and that it is the refurbishers who install the software before reselling the devices (DE:145:190-191, 204).

v. District Court's Factual Findings and Imposition of Sentence

After hearing the above testimony, the court heard more argument from the parties. The government reiterated the basis for its \$700,000 infringement amount, which derived from a \$25 per disc valuation multiplied by the stipulated 28,000 unauthorized discs trafficked by Lundgren as part of the conspiracy (DE:145:197-200). The \$25 figure, as noted, reflected the fact that (1) Lundgren and Wolff aimed to sell the unauthorized discs to refurbishers, and (2) the lowest price at which Microsoft sells its OS software to refurbishers is \$25 per unit.

In response, Lundgren agreed that his unauthorized Reinstallation Discs contained identical copies of Microsoft OS software, but he nevertheless claimed that the retail price should be the price at which Wolff sold the counterfeit discs during the conspiracy—\$3 for Windows 7, and \$4 for Windows XP (DE:145:201-203).

The court rejected Lundgren's call to use the price that would have been paid by the infringers on the black market, noting:

[Y]ou are talking to me about the prices that the violators would pay. That is not the standard. The standard here, if it is an exact copy, and we all agree it is an exact copy, if it is an exact copy, the question as a matter of law is, what is the retail price of Microsoft, not what the infringers are paying or able to get. They are obviously engaging in an outlaw market, an illegal market that has a depressed value. That is why they are there, because the product is cheaper, not in Redland, California buying from Microsoft.

(DE:145:203).

Ultimately, the court concluded that it would use the \$25 per disc price proffered by the government and the Microsoft expert (McGloin) (DE:145:218). In reaching its decision, the court made the following findings and credibility determinations on the record, in the following order (DE:145:208-218):

• "[T]the reinstallation disc contains an exact copy of the Microsoft software that was pre-installed by the original equipment manufacturer" (DE:145:209).

- "[S]omeone can sell their computer and the new purchaser essentially inherits the license and has the right, if they lose the reinstallation disc, to be able to go to the original equipment manufacturer and the testimony is really, without dispute, that you can obtain a free copy of it" (DE:145:210).
- "[N]ormally [under Section § 2B5.3(b)] one would use the value of the infringing article unless, unless certain exceptions occur, in which case you turn and you use the retail value of the infringed—of the authentic item. And one of those situations is when the infringing item is or appears to a reasonably informed purchaser to be identical or substantially equivalent to the infringed item or is a digital or electronic reproduction of the infringed item" (DE:145:211).
- "[W]hat Mr. Wolff and Mr. Lundgren did—and what they have acknowledged that they did—is that they produced and obtained—had produced these exact copies of the legitimate reinstallation discs" (DE:211-212).
- "I recognize there has been a dispute in the testimony about what you could do with one of these things, and I have certainly listened to Mr. Weadock's testimony and Mr. McGloin's testimony. I find Mr. McGloin's testimony to be credible and worthy of belief that he did take the installation device and

was successful in installing it on two different computers and that it worked. That is, it worked in the sense that it functioned" (DE:145:212).

- "I understand Mr. Weadock tried to do it and he was unsuccessful. I understand, too, that Microsoft, probably with the XP or one of them—I may have them mixed up. One would close down after 30 days. Windows 7, apparently was more tolerant and you might have to put up with a continuing prompt that would ask you to activate it and follow those steps, but ultimately, if you didn't do it, what happened is, apparently a legend would come up telling you that you had software that is not genuine" (DE:145:212).
- "[O]ne has to assume that in doing what they did that Mr. Wolff and Mr. Lundgren, both of whom are very intelligent people and have had a lot of experience in this field, that they understood the market that was out there ... and that the aim was to sell these counterfeit copies to small refurbishers who would be able to use them and be able to provide the user with a functioning computer and operating system" (DE:145:212-213).
- "I have a copy of the counterfeit disc, and I have a copy and copies of the authentic discs. Candidly, there is no way, there is no way a reasonably prudent person would be able to differentiate between the two. I guess that is the expertise of the counterfeiters ... in China who are masters in having

achieved this. You just wouldn't be able to tell.... So, there is no way that the normal person would be able to tell the differences" (DE:145:213-214).

- "I find credible and worthy of belief Mr. McGloin's testimony with respect to what appeared on the screen when you loaded the disc into the computers. It's identical to the legitimate screen that would appear" (DE:145:214).
- "I would also point out ... that there is [an] alternative to the first part in [note]
 2A [to § 2B5.3(b)(1)], subsection I, and that is, is a digital or electronic reproduction of the infringed item. That is exactly what we are dealing with" (DE:145:215).
- "[T]hen the debate becomes ... what is the value of the infringed device? Now, there is a split in testimony on this. Mr. Weadock suggested that the value is either zero or nominal. Mr. McGloin has suggested that the value is one of the values set forth on Government's Exhibit 18. I appreciate Mr. Weadock's testimony, he is obviously someone with experience in this area, but I reject his testimony as not credible nor worthy of belief. I find that Mr. McGloin's testimony is the correct view on that, and is in fact credible and worthy of belief" (DE:145:215).
- "[Y]ou need to step back for a second and say, look, we are in the real world, why were these people doing what they were doing? ... [T]his was a business, a business venture in which they invested about \$80,000 in the hope,

certainly, of, number one, being able to market the product, and secondly, obtain a profit. Now, so, clearly there is a value to these" (DE:145:215-216).

- "I understand the contention is, well, this doesn't have any value if you don't have a license. But ... that suggests you are dealing with honorable people, law-abiding people, people who would think it is important that you have a license.... [T]here is illegitimate piracy going on, and it happens. This is a huge problem in the intellectual property area...." (DE:145:216).
- "[T]he reinstallation disc ... is just the means of installing the software. The item that has been—or the product that has been infringed is the Microsoft software. The potential valuations, I think, are all accurate as set forth on 18, but I accept what I think is a reasonable accommodation in this case because I suspect it does accord with what was in fact the Defendant's intentions, and that is to market these counterfeit reinstallation discs to small registered refurbishers. And I do think that in looking for the retail value, it is correct to look to the retail value that a registered—Microsoft registered, Microsoft approved small refurbisher, the monies paid to Microsoft" (DE:145:217-218).
- "For Windows XP, that is \$25 per unit of Windows XP, and for Windows 7, that is \$40 for Windows 7.... I will accept that [the Government is further willing to discount the Windows 7 to \$25], although it is at odds with what I

think is the credible testimony, but I want to do it in a way that is beneficial to the Defense that the Government is willing to accede" (DE:145:218).

The district court then convened the hearing to determine an appropriate sentence (DE:145:219). At the final hearing, the court adopted the advisory guideline range of 37 to 46 months' imprisonment (DE:146:20). Lundgren spoke on his own behalf, describing his entrepreneurial and philanthropic achievements, his regret and shame for the crime he committed, and his hope that the court would grant him a non-incarcerative sentence (DE:146:39-48). Several other character witnesses also testified for him, all of whom generally described him as trustworthy and reliable (DE:146:23-39). Finally, Lundgren's attorney reiterated his request for a sentence of house arrest (DE:146:49).

The government recommended a sentence of 18 months' imprisonment, which it noted already reflected a downward variance from the 37-to-46 advisory range (DE:146:54). The governmental referenced (1) the seriousness of Lundgren's conduct and the harm to the industry caused by Lundgren's infringement scheme; (2) the economic loss to the software industry due to counterfeiting; (3) the importance of celebrating entrepreneurship when done correctly but not allowing the theft of others' ideas; and (4) the deliberate effort involved in Lundgren's counterfeiting enterprise, which included traveling to China, locating the right factories capable of supplying counterfeit discs and labels, and then coordinating over the course of a couple of years to promote his business (DE:146:51-57). Finally, the government noted that a probationary-type sentence would send the wrong message, and that although Lundgren had accepted responsibility by ultimately pleading guilty, his zero-dollar valuation reflected the false narrative that "he never sold this for the reason we know he sold it, which was for refurbishers to use the software" (DE:146:52-53).

After hearing argument from the parties, the district court set forth its consideration of the 18 U.S.C. § 3553(a) factors (DE:146:58-65). The court noted the power of software as a technological advancement, the tremendous importance of safeguarding copyright protections, and the brand and reputational harm caused by piracy (DE:146:58-65). The court referenced the visual and functional similarity of Lundgren's counterfeit discs, noting the inability to "tell them apart" from the genuine discs (DE:146:61). The court also acknowledged Lundgren's personal achievements, but explained that it had to consider the need to promote general deterrence as well, and that what Lundgren and Wolff had done was "wrong"-it "required skill, it required thought, [and] it wasn't a quick thing," as evidenced by the emails showing his careful actions (DE:146:65). Finally, the court stated: "[I]t is pretty clear you understood that you were essentially highjacking legitimate software. You may have said, well, it is okay, and other rationalizations ... but it is pretty clear you were doing that" (DE:146:65).

Ultimately, the district court imposed a downward variance of 15 months' imprisonment as to Count 1 and 15 months' imprisonment as to Count 3, to be served concurrently (DE:146:66; DE:129:2).

3. <u>Standard of Review</u>

This court reviews *de novo* a district court's interpretation of the Sentencing Guidelines and accepts its factual findings unless clearly erroneous. See United States v. Crawford, 407 F.3d 1174, 1177-78 (11th Cir. 2005). The district court's determination of the infringement amount in a case involving counterfeit merchandise is a factual finding reviewed for clear error. United States v. Lozano, 490 F.3d 1317, 1322 (11th Cir. 2007). "Clear error review is deferential," and this Court will not disturb a district court's findings unless it is "left with a definite and firm conviction that a mistake has been committed." United States v. Monzo, 852 F.3d 1343, 1345 (11th Cir. 2017) (internal quotation marks omitted)). Generally, this Court accepts a credibility determination unless it is "so inconsistent or improbable on its face that no reasonable factfinder could accept it." United States v. Ramirez-Chilel, 289 F.3d 744, 749 (11th Cir. 2002) (internal quotation marks omitted).

Summary of the Argument

Lundgren argues that the district court clearly erred in determining that he was accountable for an infringement amount of \$700,000 under Section 2B5.3(b)(1)(B)

of the Sentencing Guidelines. His theory, which he bases largely on the testimony of an expert witness whom the district court found not credible (DE:145:215), is that the discs that he sold as part of a for-profit criminal conspiracy should have been valued at zero, because, according to him, they are "worthless" without a product key or license from Microsoft. Lundgren is wrong. The court correctly found that the counterfeit discs that he trafficked offered a visually identical and functional version of genuine retail Microsoft OS software when installed, regardless of the entry of a license or product key (DE:145:212-215). That finding is rooted in substantial record evidence, including in the detailed testimony of the government's Microsoft expert, whom the district court expressly credited (DE:145:212, 214-215).

Moreover, given Lundgren's undisputed aim to sell his counterfeit discs to computer refurbishers, the district court appropriately used the lowest possible retail price at which Microsoft sells its OS software to computer refurbishers. That price, unchallenged by Lundgren, is \$25, and the stipulated number of discs that Lundgren trafficked is 28,000—yielding an infringement amount of \$700,000. As Lundgren's own emails make clear, he was engaged in a calculated, for-profit enterprise to counterfeit and sell thousands of Reinstallation Discs containing identical copies of Microsoft OS software to computer refurbishers who could not detect the difference. Those discs function in substantially the same way as genuine Microsoft OS software, regardless of the entry of a product key, and indeed, that is

why Lundgren so eagerly tried selling them for a "steady income," even boasting that only an expert like "Bill Gates" could detect their counterfeit nature.

There is no error, clear or otherwise, in the district court's careful, credibilityladen findings. Lundgren's already downwardly varied sentence of fifteen months' imprisonment (from a range of 37 to 46 months' imprisonment) should be affirmed.

Argument

The District Court Properly Calculated the Infringement Amount in this Case at \$700,000.

Lundgren argues that the district court clearly erred in calculating an infringement amount of \$700,000 (Br. 9-19). His sole contention is that the court misunderstood a purported key distinction between the value of Microsoft OS software *with* a license and a product key versus Microsoft OS software *without* a license and product key (Br. 14). According to him, because the counterfeit Reinstallation Discs that he trafficked did not come with a license or a product key, they offered only a worthless, inactivated version of Microsoft OS software with no value (Br. 15). Hence, he says, the value of the infringed item should have been zero, or close to zero—a theory he says is bolstered by the fact that authorized purchasers of genuine Microsoft OS software can download replacement OS software directly from Microsoft or from licensed OEMs for free online (Br. 16).

Lundgren is incorrect. The district court carefully considered the evidence over the course of a lengthy evidentiary hearing, understood the factual and legal issues presented, and came to the well-supported and credibility laden conclusion that Lundgren was accountable for a \$700,000 infringement amount. Lundgren's erroneous argument to the contrary, and his insistence on a zero-dollar valuation, rests on the testimony of a defense expert whom the district court found not credible, and it should be rejected (DE:145:203).

As a preliminary matter, we clarify what is not in dispute in this appeal.

First, Lundgren agrees, as he did below, that the district court used the correct infringement value formulation as found in Note 2(A) to Guideline Section § 2B5.3(b)(1) (Br. 9, 12-13). That commentary directs the court to use "the retail value of the infringed item, multiplied by the number of infringing items" when "[t]he infringing item (I) is, or appears to a reasonably informed purchaser to be, identical or substantially equivalent to the infringed item; or (II) is a digital or electronic reproduction of the infringed item." USSG § 2B5.3, cmt. 2(A)(i)(I)-(II). Lundgren agrees that both of those conditions apply here, and he further agrees that the "infringed item" in this case is genuine Microsoft OS software (Br. 13 ("There was and is no dispute that the unauthorized copies of the discs containing OS software that Mr. Lundgren pled guilty to … were digital or electronic reproductions of the Windows OS that were identical or substantially equivalent to the version of the software included on the Dell reinstallation discs.")).

Second, as he stipulated when he pled guilty (DE:86:1), Lundgren does not dispute that the purpose of his conspiracy was to sell the counterfeit Reinstallation Discs to computer refurbishers (Br. 13 ("Wolff asked for Mr. Lundgren's help in reproducing Dell reinstallation discs that Wolff planned to sell to Dell computer refurbishers"); DE:86:1).

Finally, Lundgren does not challenge the accuracy of the retail prices listed in Government Exhibit 18 or, in particular, the validity of the low-end \$25 price at which Microsoft sells its OS software to registered refurbishers as part of its Registered Refurbisher Program.

His sole claim, as noted, is that the district court was "confused" by the evidence (Br. 10, 15, 17, 19) and should have ascribed to the discs a value of zero on the theory that they have no value absent a license or product key (Br. 14). The district court made no error.

First, and most importantly, the district court correctly found that the counterfeit discs that Lundgren trafficked did in fact offer a visually identical and functional version of Microsoft OS software when installed, regardless of the entry of a license or product key (DE:145:212-215). The court credited the government's

Microsoft expert (McGloin) on this point,¹² and that finding is well supported in the record.

Indeed, as detailed above, McGloin was able, using Lundgren's unauthorized discs, to install a full version of Microsoft OS software with the same functionality as a genuine retail version of the software. *Supra* pp. 20-25.

In one test, overlooked entirely by Lundgren in his brief, McGloin used an "unconsumed" product key from a different device to load a *fully functional operating system*—without any "nagging" prompts for a product key, and with all of the regular "add ons" that Microsoft would provide to a legitimate user (e.g., updates) (DE:145:104-105, 148-149). As McGloin observed, over 98% of computers sold by OEMs possess COAs with unconsumed product keys (DE:145:52). Thus, it is "very common" for computer refurbishers to transfer COAs with unconsumed product keys from one device to another as a means of impermissibly granting a license to an otherwise unlicensed device (DE:145:51). Indeed, McGloin showed this to be the case; he used an unconsumed product key from the COA adhered to the back of an old Lenovo tablet to install and activate a

¹² (DE:145:212 ("I find Mr. McGloin's testimony to be credible and worthy of belief that he did take the installation device and was successful in installing it on two different computers and that it worked. That is, it worked in the sense that it functioned."); DE:145:214 ("I find credible and worthy of belief Mr. McGloin's testimony with respect to what appeared on the screen when you loaded the disc into the computers. It's identical to the legitimate screen that would appear.").

pirated yet fully functional copy of Microsoft OS software using Lundgren's counterfeit discs (DE:145:104-105).

In the two other test installations, McGloin again managed to use Lundgren's unauthorized Reinstallation Discs to install functional versions of Microsoft OS software—and he did so notwithstanding the absence of a license or product key. Supra pp. 20-25 (referencing DE:145:90-106, 115-116, 127-131, 141-142). This is because, as he testified, both Microsoft Windows XP and Microsoft Windows 7 did not have a "functionality step," and so the software continued to function, without shutting down, even beyond the 30-day activation period (DE:145:95-97). McGloin reiterated this point several times, stating that (1) Lundgren's counterfeit Reinstallation Discs installed "full version[s]" of Microsoft OS software (DE:145:115); (2) users could "access the internet on a nonactivated machine" (DE:145:127); (3) even where a user fails to enter a license or product key, the software "will actually allow [the user] to use it, despite what it says," and it will not "completely shut down or prevent [the user] from using it" (DE:145:130); and (4) the counterfeit copies of the Microsoft OS software sold by Lundgren provided the same functionality as genuine retail Microsoft OS software (DE:145:141-142).

To be sure, in some of the test installations, McGloin received "nagging" prompts asking him to enter a product key, including a notice that he had 30 days to activate in conformity with the terms of Microsoft's license agreement. *Supra*

pp. 21-23. He also acknowledged that he would not receive certain product updates or services without a product key. *Supra* pp. 21, 24. But, contrary to Lundgren's claims (Br. 15), McGloin was clear that he was able to install a visually identical and substantially equivalent operating system that functioned, notwithstanding the absence of a product key, and despite the terms of the 30-day limit in Microsoft's license agreement. Supra pp. 20-25. And, of course, those "nagging" prompts were not an issue when he used the "unconsumed" product key on the back of his old computer (DE:145:104-105)—an illegal practice that he described as "very common," and a practice that yielded a fully functional operating system just as a genuine end user would experience (DE:145:51 ("Q. Have you, in your experience, ever seen instances where people, whether it is a refurbisher or somebody else who wants to circumvent the product key, where they take the COA off one and put it on another? A. Yes, it happens all the time.")).

In light of this record evidence, and given Lundgren's undisputed aim to sell his counterfeit discs to computer refurbishers, the district court rightly found that the appropriate value of the infringed software is the retail price at which Microsoft sells refurbishers genuine copies of Microsoft OS software (DE:145:215-218). The government presented unchallenged evidence that (1) Microsoft sells its software to registered refurbishers at price of \$25 (at the low end) (GX18); and (2) the number of discs that Lundgren trafficked was 28,000 (DE:86:3)—yielding an infringement amount of \$700,000 under Section § 2B5.3(b)(1)). The court made a finding on the \$25 retail value (DE:145:218), and Lundgren does not dispute the accuracy of that figure.¹³

Instead, he simply repeats his flawed premise, which is that the district court should have used a value of zero because, as he claims, the discs that he trafficked offered only an inactivated, limited operating system (Br. 15). He relies on his discredited expert (Weadock) for this "worthless" proposition (Br. 14 n.8), but the court expressly rejected that zero-valuation testimony as "not credible []or worthy of belief," choosing instead to credit McGloin's testimony on the valuation of the infringed item (DE:145:215). These well-considered credibility determinations warrant substantial deference, and there is nothing about them that can be deemed "contrary to the laws of nature" or "so inconsistent or improbable on its face that no reasonable factfinder could accept [them]." *Ramirez-Chilel*, 289 F.3d at 749 (internal quotation marks omitted); *see Rivers v. United* States, 777 F.3d 1306, 1317

¹³ In fact, the use of the \$25 figure is a conservative estimate that inures to Lundgren's benefit. The retail price of the same Microsoft software at retail stores is \$119 on the low end (\$119 for Windows 7 Home and \$199 for Windows XP Home). Nevertheless, on the government's recommendation, the district court agreed not to use that much higher retail-store price, noting that Lundgren's target market was computer refurbishers (DE:145:217). Moreover, even within the registered refurbisher category, the court made another "beneficial" accommodation to the defense by using the \$25 figure for *both* Windows XP and Windows 7—even though Windows 7 was priced at a higher, \$40 price (DE:145:218).

(11th Cir. 2015) ("We will uphold a district judge's credibility determination unless the court's understanding of the facts appears to be unbelievable." (internal quotation marks omitted)).

Nor is there a reason to think the district court, who presided over a lengthy evidentiary hearing and clearly understood the factual and legal issues at play (DE:145:208-218), was "confused" about the with-a-key versus without-a-key distinction. To the contrary, the court honed in on that precise issue and rejected Lundgren's "specious" argument (DE:145:203, 215-216), noting the reality of the conspiracy to which Wolff and Lundgren had pled guilty as reflected in Lundgren's emails (DE:145:179-180, 215-216). They were engaged in a calculated, illegal, forprofit business to counterfeit genuine Microsoft software so they could sell it to refurbishers who could not detect the difference, and it was Lundgren who boasted in emails that only an "expert with a magnifying glass" or "Bill Gates" could tell otherwise (DE:145:213-214; DE:145:20-25 (discussing emails); DE:146:65 ("[I]t is pretty clear you understood that you were essentially highjacking legitimate software.")). These e-mails underscore Lundgren's obvious profit motive, *supra* pp. 12-14, and they severely undermine his discredited narrative that he was trying simply to help licensed Microsoft software owners who did not know about, or could not access, free downloads of the Microsoft operating system software.

Finally, Lundgren faults the government for failing purportedly to prove the value of a Reinstallation Disc without a product key (Br. 10). That criticism, however, rests on an invalid premise. There is no freestanding market for the purchase of thousands of reinstallation discs without a product key (DE:145:81, 177-178).¹⁴ Indeed, there is no separate commercial means by which an OEM can sell recovery discs, and the only legal way in which a computer refurbisher can buy thousands of genuine Reinstallation Discs is through the Microsoft RRP. Supra pp. 26-28. Moreover, the only time a licensed OEM can supply a reinstallation disc is if the end-user can show that the computer originally had a genuine license (DE:145:54-56, 132, 177-178). Thus, although it is true that a *licensed* owner of genuine Microsoft OS Software can download replacement Microsoft software for free after proving that he or she has a genuine license—*that is not what is happening here*. As the district court found, this is a criminal copyright infringement scheme, in an "outlaw market" (DE:145:203), to pirate and duplicate functional versions of

¹⁴ (DE:145:81 ("Q. Is there a retail market for recovery discs, outside of OEM's? A. Microsoft does not allow OEM's to sell recovery discs separately in a commercial means. It is not viewed as a standard on the product, it has to be sold with the device. Q. An OEM can't say I have an extra 30,000 recovery discs, I am going to sell them to Mr. Lundgren? A. That is not allowed."); DE:145:178 ("Q. If you don't have 16,000 computers, could you get 16,000 versions of the recovery disc? A. I don't think so. Q. You don't? A. No. When you go to Dell, you have to provide them if you want a reinstallation CD, you have to provide a serial number or service tag number, some proof you licensed that computer for that operating system.").

Microsoft OS software and sell them for a profit as purported genuine copies of the software to computer refurbishers (DE:145:203, 215-216). Those discs—as the district court found (DE:145:212-215)—are visually identical and function in substantially the same way as genuine Microsoft OS software, and that is why Lundgren so eagerly tried selling them, prodding Wolff to make the sales so he could "ensure a steady income for the next year to come" (GX9). *Supra* p. 14.

Simply put, this appeal is about a battle of the experts, at best, and the law is clear that where, as here, the district court has weighed that competing evidence and made reasonable credibility determinations based on ample evidentiary support, this Court should not disturb its determinations on appeal. See, e.g., Anderson v. City of Bessemer City, N.C., 470 U.S. 564, 574-75 (1985) ("Where there are two permissible views of the evidence, the factfinder's choice between them cannot be clearly erroneous."). See Pioneer Hi-Bred Int'l v. Holden Found Seeds, Inc., 35 F.3d 1226, 1238 (8th Cir. 1994) ("We will not disturb the district court's decision to credit the reasonable testimony of one of two competing experts." (quoting Lansford-Coaldale Joint Water Auth. v. Tonolli Corp., 4 F.3d 1209, 1218 n.7 (3d Cir. 1993)); Amstar Corp. v. Envirotech Corp., 823 F.2d 1538, 1543 (Fed. Cir. 1987) ("When, as here, the evidence consists solely of competing expert opinions, we have no basis for overturning the district court's credibility determinations."); An-Son Corp. v. Holland-America Ins. Co., 767 F.2d 700 (10th Cir. 1985) (noting that, when

the evidence consists primarily of conflicting expert testimony, the appellate court is loath to disturb the trial court's findings based upon such evidence).

The district court did not err, clearly or otherwise, in calculating the \$700,000 infringement amount.

Conclusion

Lundgren's already downwardly varied sentence of fifteen months' imprisonment should be affirmed.

Respectfully submitted,

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This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B), because it contains 12,470 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

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I hereby certify that seven copies of the foregoing Brief for the United States were mailed to the Court of Appeals via Federal Express this 17th day of November, 2017, and that, on the same day, it was filed using CM/ECF and served via CM/ECF on Mark C. Rificin, Esq., Randall S. Newman, Esq., and Hugo A. Rodriguez, Esq., counsels for Appellant Lundgren.

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