

FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ORACLE CORPORATION, a Delaware corporation; ORACLE INTERNATIONAL CORPORATION; ORACLE SYSTEMS CORPORATION; ORACLE USA INC.; ORACLE EMEA LIMITED; J.D. EDWARDS EUROPE LIMITED; SIEBEL SYSTEMS, INC.,
Plaintiffs-Appellants,

v.

SAP AG, a German corporation; SAP AMERICA INC.; TOMORROWNOW INC., a Texas corporation,
Defendants-Appellees.

No. 12-16944

D.C. No.
4:07-cv-01658-
PJH

OPINION

Appeal from the United States District Court
for the Northern District of California
Phyllis J. Hamilton, District Judge, Presiding

Argued and Submitted
May 13, 2014—San Francisco, California

Filed August 29, 2014

Before: Susan P. Graber, William A. Fletcher,
and Richard A. Paez, Circuit Judges.

Opinion by Judge W. Fletcher

SUMMARY*

Copyright Law

The panel affirmed in part and vacated in part the district court's judgment after a jury trial on damages for infringement of enterprise software copyrights owned by Oracle Corp. and other plaintiffs.

The jury awarded Oracle \$1.3 billion as the fair market value of a hypothetical license from Oracle encompassing the defendants' infringement of Oracle's copyrights. The district court granted judgment as a matter of law on the ground that Oracle failed to provide enough evidence to permit the jury to establish an objective, non-speculative hypothetical-license price. The district court ordered a new trial, conditioned on Oracle's rejection of a \$272 million remittitur measured by the copyright holder's lost profits plus infringer's profits, rather than by hypothetical-license damages. Oracle rejected the remittitur. The district court ruled that, if a second trial were conducted, Oracle would not be able to argue for, or present evidence of, hypothetical-license damages. Oracle and the defendants stipulated to a \$306 million judgment.

Affirming the district court's grant of JMOL, the panel held that in order to recover hypothetical-license damages, Oracle did not have to show that it actually would have granted a license to defendants. The panel also held that the hypothetical-license damage award was based on undue speculation. The panel affirmed the district court's grant of

* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

defendants' motion for new trial conditioned on Oracle's rejection of a remittitur, as well as the district court's ruling that Oracle could not pursue hypothetical-license damages at a second trial.

The panel vacated the district court's ruling selecting \$272 million as the remittitur amount because that amount was below the maximum amount sustainable by the proof. The panel remanded with instructions to condition any new trial on Oracle's rejection of a \$356.7 million remittitur.

The panel affirmed the district court's denial of Oracle's motion to exclude testimony by defendants' damages expert during a second trial. The panel declined to reach additional issues concerning a second trial.

COUNSEL

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OPINION

W. FLETCHER, Circuit Judge:

Oracle Corporation and SAP AG are competitors in the enterprise software market. In 2007, Oracle et al. (collectively, “Oracle”) brought suit against SAP et al. (collectively, “SAP”) alleging that TomorrowNow, an enterprise software company recently acquired by SAP, was engaging in systematic and pervasive illegal downloading of Oracle’s software. SAP eventually stipulated to liability, and the parties went to trial solely on damages.

The jury awarded Oracle \$1.3 billion as the fair market value of a hypothetical license from Oracle encompassing SAP’s infringement of Oracle’s copyrights. SAP moved for judgment as a matter of law (“JMOL”) on two grounds: (1) that Oracle failed to show that it actually would have granted a license; and (2) that Oracle failed to provide enough evidence to permit the jury to establish an objective, non-speculative hypothetical-license price. The district court granted JMOL, making clear in a later order that it agreed with only the second of the two grounds.

The district court ordered a new trial, conditioned on Oracle’s rejection of a \$272 million remittitur measured by the copyright holder’s lost profits plus infringer’s profits, rather than by hypothetical-license damages. Oracle rejected the remittitur. The district court ruled that, if a second trial were conducted, Oracle would not be able to argue for, or present evidence of, hypothetical-license damages. Oracle and SAP stipulated to a \$306 million judgment.

Oracle appeals from several rulings by the district court: (1) a grant of JMOL to SAP; (2) a grant of SAP's motion for a new trial conditioned on Oracle's rejection of a remittitur; (3) a ruling that Oracle could not pursue hypothetical-license damages at a second trial; (4) a ruling selecting \$272 million as the remittitur amount; and (5) four rulings on issues relevant to a second trial.

We affirm the first three rulings. We vacate the fourth ruling and remand to the district court. We conclude that the district court erred in setting the remittitur at \$272 million. That amount was below "the maximum amount sustainable by the proof," *D & S Redi-Mix v. Sierra Redi-Mix & Contracting Co.*, 692 F.2d 1245, 1249 (9th Cir. 1982). We therefore vacate and remand with instructions to condition any new trial on Oracle's rejection of a \$356.7 million remittitur. We affirm one of the four rulings relating to the second trial; we do not reach the questions presented by the other three rulings.

I. Background

Oracle and SAP are self-described "fierce" competitors in the enterprise software industry. In 2005, when Oracle acquired PeopleSoft, another enterprise software company, for \$11 billion. PeopleSoft had itself recently acquired J.D. Edwards, another enterprise software company. In acquiring PeopleSoft, Oracle hoped to gain PeopleSoft's nearly 10,000 customers. In reaction to Oracle's acquisition, SAP initiated a marketing program called Safe Harbor and later, in a modified form, Safe Passage. For convenience, we will refer to this program as Safe Passage.

As a key component of Safe Passage, SAP acquired TomorrowNow Inc. (“TomorrowNow”) in 2005 for \$10 million. Founded by former employees of PeopleSoft, TomorrowNow provided software maintenance services to PeopleSoft’s customers, including J.D. Edwards’ customers, at half the price charged by Oracle. After Oracle acquired Siebel Systems, another enterprise software company, for \$6 billion in 2006, TomorrowNow expanded its maintenance services to include Siebel software. SAP hoped to leverage TomorrowNow’s relationship with its maintenance service customers to persuade some of those customers to switch over to SAP software.

In 2006, an Oracle employee noticed thousands of suspicious downloads of Oracle software. After an investigation, Oracle concluded that TomorrowNow had illegally downloaded millions of PeopleSoft, J.D. Edwards, Siebel, and Oracle database files. TomorrowNow continued to provide maintenance services to Oracle customers using these downloads until sometime in 2008.

Oracle brought suit in federal district court in 2007, alleging copyright infringement and other federal and state claims. Shortly before trial, SAP stipulated to liability on Oracle’s copyright claims, and Oracle dismissed with prejudice all of its non-copyright claims.

The district court conducted a thirteen-day jury trial limited to damages for copyright infringement. The district judge instructed the jury that it could award either (1) hypothetical-license damages or (2) plaintiff’s lost profits and infringer’s profits. Oracle’s expert testified, based on a hypothesized negotiation that would have taken place before the infringement began, that the fair market value of a license

allowing use of the downloaded software for the period of infringement would have been \$1.656 billion. In November 2010, the jury returned a verdict for Oracle for \$1.3 billion, based on what it found was the fair market value of a hypothetical license granted by Oracle.

SAP objected to the amount of the damage award and moved for JMOL. The district court granted JMOL, making clear in a later order that its sole ground for denying the motion was that “the evidence Oracle presented was insufficient to establish an objective non-speculative license price.”

SAP also moved for a new trial. The district court granted the motion conditioned on Oracle’s rejection of a \$272 million remittitur. The district court determined that \$272 million was “the maximum amount . . . sustainable by the proof.” In granting SAP’s motion, the district court made clear that in a new trial, if one were conducted, Oracle would not be allowed to argue for, or present evidence of, hypothetical-license damages.

Oracle rejected the \$272 million remittitur. In advance of a second trial, the district court denied a number of Oracle’s evidentiary motions. In order to expedite an appeal, the parties stipulated to a \$306 million judgment in Oracle’s favor. Oracle timely appealed.

II. Standard of Review

We review de novo a district court’s grant of JMOL under Federal Rule of Civil Procedure 50. *Mangum v. Action Collection Serv., Inc.*, 575 F.3d 935, 938 (9th Cir. 2009). JMOL “is properly granted only if no reasonable juror could

find in the non-moving party’s favor.” *Id.* at 939 (quoting *Torres v. City of L.A.*, 548 F.3d 1197, 1205 (9th Cir. 2008)). The court ““must view the evidence in the light most favorable to the nonmoving party . . . and draw all reasonable inferences in that party’s favor.”” *EEOC v. Go Daddy Software, Inc.*, 581 F.3d 951, 961 (9th Cir. 2009) (alteration in original) (quoting *Josephs v. Pac. Bell*, 443 F.3d 1050, 1062 (9th Cir. 2006)).

“We review a district court’s grant of a new trial for an abuse of discretion.” *Silver Sage Partners, Ltd. v. City of Desert Hot Springs*, 251 F.3d 814, 818 (9th Cir. 2001). “[T]he same standard of review is appropriate . . . where a plaintiff rejects the remittitur and a second trial is held” *Id.* at 818–19. We review for abuse of discretion a remittitur amount set by the district court. *D & S Redi-Mix*, 692 F.2d at 1249.

III. Discussion

A. Grant of JMOL

SAP makes two arguments in support of the district court’s grant of JMOL. First, SAP argues that, in order to recover hypothetical-license damages, Oracle had to show that it actually would have granted a license to TomorrowNow. Second, SAP argues that the jury’s hypothetical-license damage award was based on undue speculation. The district court disagreed with the first argument but agreed with the second. We agree with the district court.

1. No Grant of License

SAP argues that hypothetical-license damages cannot be awarded because Oracle was unwilling to grant a license to TomorrowNow for the use of its PeopleSoft, J.D. Edwards, Siebel, and Oracle database copyrights. As a factual matter, we agree that Oracle never would have granted such a license to TomorrowNow. Oracle executives testified generally that Oracle never licenses its software to competitors, and specifically that Oracle never would have granted a license to TomorrowNow.

However, we disagree with SAP's legal argument. Under 17 U.S.C. § 504(b), a "copyright owner is entitled to recover [1] the actual damages suffered by him or her as a result of the infringement, and [2] any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages." "[A] plaintiff in a § 504(b) action must establish [a] causal connection" "between the infringement and the monetary remedy sought." *Polar Bear Prods., Inc. v. Timex Corp.*, 384 F.3d 700, 708 (9th Cir. 2004). "'Actual damages' are the extent to which the market value of a copyrighted work has been injured or destroyed by an infringement." *Frank Music Corp. v. Metro-Goldwyn-Mayer, Inc.*, 772 F.2d 505, 512 (9th Cir. 1985). Although "actual damages" can be awarded in the form of lost profits, hypothetical-license damages also constitute an acceptable form of "actual damages" recoverable under Section 504(b). See *Polar Bear Prods.*, 384 F.3d at 708–09. To calculate the "market value" of the injury to the plaintiff based on a hypothetical-license theory, we look to "the amount a willing buyer would have been reasonably required to pay a willing seller at the time of the infringement for the actual use made by [the infringer] of the plaintiff's work."

Wall Data Inc. v. L.A. Cnty. Sheriff's Dep't, 447 F.3d 769, 786 (9th Cir. 2006) (internal quotation marks omitted).

We have never required a plaintiff in a copyright infringement case to show that it would have licensed the infringed material. We decline to impose such a requirement now. A copyright holder has the right to refuse to license its work and should not be penalized for exercising that right. *See Stewart v. Abend*, 495 U.S. 207, 228–29 (1990). If we were to require a copyright holder to demonstrate that it would have been willing to grant a license as a condition for recovering damages based on the fair market value of the license, the perverse result would be that some of the most assiduously protective copyright holders would be unable to recover the fair market value of their wrongfully appropriated copyrighted property. For example, posit a songwriter who has consistently refused to license her work for use in advertising. A fast-food chain nonetheless uses one of her songs in a nationwide television campaign. If the rule were as SAP proposes, the songwriter could not recover hypothetical-license damages for the infringement even if she could demonstrate that other songwriters charge \$200,000 to license comparable songs for such use. This rule could operate unfairly, given the difficulty the songwriter might face in meeting the burden of proof for lost profits and infringer's profits. *See On Davis v. The Gap, Inc.*, 246 F.3d 152, 166 (2d Cir. 2001) (“In our view, as between leaving the victim of the illegal taking with nothing, and charging the illegal taker with the reasonable cost of what he took, the latter, at least in some circumstances, is the preferable solution.”).

SAP argues that a plaintiff must show that a license would have been granted because, if the copyright holder would

never have agreed to license her work, she could not, by definition, have lost any licensing fees “as a result of the infringement” within the meaning of 17 U.S.C. § 504(b). We disagree.

The Second Circuit has explained:

If a copier of protected work, instead of obtaining permission and paying the fee, proceeds without permission and without compensating the owner, it seems entirely reasonable to conclude that the owner has suffered damages to the extent of the infringer’s taking without paying what the owner was legally entitled to exact a fee for. We can see no reason why, as an abstract matter, the statutory term “actual damages” should not cover the owner’s failure to obtain the market value of the fee the owner was entitled to charge for such use.

On Davis, 246 F.3d at 165. The court explained further that “whether the infringer might in fact have negotiated with the owner or purchased at the owner’s price is irrelevant” to whether hypothetical-license damages are available. *Id.* at 171–72.

Hypothetical-license damages assume rather than require the existence of a willing seller and buyer. The very word “hypothetical” indicates that damages may be awarded in the absence of an actual license. Oracle was thus not required, as a categorical prerequisite to recovery of hypothetical-license damages, to show that it would ever have granted a license. Consistent with our cases upholding a hypothetical-license

damages award, and following the Second Circuit’s decision in *On Davis*, we hold that a copyright plaintiff’s unwillingness to grant a license to use its copyrighted work does not defeat its ability to recover hypothetical-license damages.

2. Undue Speculation

An award of hypothetical-license damages is appropriate “provided the amount is not based on ‘undue speculation.’” *Polar Bear Prods.*, 384 F.3d at 709 (quoting *McRoberts Software, Inc. v. Media 100, Inc.*, 329 F.3d 557, 566 (7th Cir. 2003)). The touchstone for hypothetical-license damages is “the range of [the license’s] reasonable market value.” *Id.* “The question,” therefore, “is not what the owner would have charged, but rather what is the fair market value.” *Jarvis v. K2 Inc.*, 486 F.3d 526, 534 (9th Cir. 2007) (quoting *On Davis*, 246 F.3d at 166). Thus, we do not ask what the owner would like to have charged if unconstrained by reality, but what a willing owner actually would have charged after negotiation with the buyer. That is, fair market value is based on “an objective, not a subjective, analysis.” *Jarvis*, 486 F.3d at 534 (quoting *Mackie v. Rieser*, 296 F.3d 909, 917 (9th Cir. 2002)).

Fair market value in a voluntary licensing transaction between arms-length parties ordinarily lies somewhere between the two poles of cost to the seller and benefit to the buyer. That is, the seller will not ordinarily charge less for a license than its anticipated cost, and the buyer will not ordinarily pay more for a license than its anticipated benefit. In the case of a hypothetical license, it is often difficult to determine what, at the time of the infringement, the seller and buyer thought would be their respective cost and benefit.

Further, even if the cost and benefit can be determined with some degree of certainty, it is often difficult to determine the range between the two poles of cost and benefit within which the parties would likely have settled.

Oracle argues that the jury's \$1.3 billion verdict was reasonably supported, pointing to evidence of, among other things, the enormous amount of data surreptitiously downloaded by TomorrowNow, the amount that Oracle paid to acquire PeopleSoft and Siebel, and estimates of how much money Oracle stood to lose and SAP stood to gain from TomorrowNow's infringement. The district court concluded that "the evidence Oracle presented was insufficient to establish an objective non-speculative license price." We agree. Given that the evidence presented at trial failed to provide "the range of the reasonable market value" for the hypothetical license in question, we hold that the jury awarded damages using an "undue" amount of speculation. See *Polar Bear Prods.*, 384 F.3d at 709.

a. Benefit to SAP

In its opening brief, Oracle points to two types of evidence showing SAP's expected benefit. First, Oracle states that TomorrowNow's infringement occurred on a "massive" scale. Oracle explains that TomorrowNow's illegal downloads of Oracle software "totaled over five terabytes of infringing data," which "would encircle the globe nine times if printed out on double-sided paper laid end-to-end." This is a dramatic image, emphasizing that there was a great deal of downloaded data. But the quantity of the data, by itself, tells us very little about its value to SAP.

Second, Oracle presented evidence of SAP's own projected "benefits from its use of stolen materials." Oracle relies heavily on two pieces of evidence as to PeopleSoft: (1) SAP's internal financial estimates, relating to the conversion of PeopleSoft customers to SAP, which projected nearly \$900 million in revenue over three years, and (2) testimony from an SAP executive that TomorrowNow's maintenance and support offerings were an "important" part of this conversion plan. As to Siebel, Oracle's expert testified that SAP's improper use of Siebel copyrights would have yielded \$97 million to \$247 million in "financial gains" to SAP. As to Oracle database software, Oracle does not identify specific evidence as to the benefit that SAP stood to gain from TomorrowNow's infringement.

Although these figures are relevant to the question of the benefit that SAP hoped to derive from TomorrowNow's infringing activity, they leave important gaps. As to PeopleSoft and J.D. Edwards, we know that SAP hoped to gain \$900 million in revenues by siphoning off business from Oracle. We also know that TomorrowNow's infringement of Oracle's copyrights was "important" to the success of this effort. But Oracle points to no evidence indicating what portion of the \$900 million in projected revenue SAP hoped to obtain from TomorrowNow's infringing activity, as distinct from the lawful portion of the Safe Passage program.

Moreover, the \$900-million figure was only what SAP *hoped* it could achieve over three years. The presentation slide prepared for SAP's internal use, upon which Oracle bases its argument, characterized the calculations underlying this figure as merely "Assumptions." An SAP executive who provided the numbers for the slide testified that he "attempted to make reasonable assumptions," but the slide tells us little

about what probability SAP actually assigned to such assumptions. Although we look to the expectations of the parties at the time of the hypothetical negotiation in determining the hypothetical-license value, *see, e.g., Wall Data*, 447 F.3d at 786, it is telling that, in the end, TomorrowNow had a total of only 358 customers by the time it closed its doors in 2008, a small fraction of the customers SAP had hoped to attract.

Oracle strenuously argues that SAP “considered its projections reliable enough to serve as the basis for its acquisition” of TomorrowNow, but it fails to mention that SAP acquired TomorrowNow for only \$10 million. If SAP truly anticipated that TomorrowNow would produce a \$1.3 billion benefit to SAP, as Oracle contends, a \$10 million acquisition price is strikingly low. This low acquisition price does not in itself necessarily preclude Oracle’s recovery of a \$1.3 billion verdict. But it casts substantial doubt on Oracle’s argument that SAP’s stated assumptions on the slide were realistic, and that SAP officials believed these assumptions when they negotiated their purchase price for TomorrowNow. Even discounting the value to SAP of TomorrowNow based on the possibility of discovery of the illegal downloads and resulting litigation, \$10 million is a great deal less than the \$1.3 billion Oracle says SAP would have paid to Oracle for a license to do what TomorrowNow was doing.

b. Cost to Oracle

To show its expected cost, Oracle presented evidence of projected lost revenue resulting from TomorrowNow’s use of the downloaded software. Oracle’s expert testified that if SAP had reasonably convinced 1,375 customers to switch to SAP’s software, as projected, Oracle stood to suffer over \$1.3

billion in “loss[es].” As to Siebel, Oracle argues that SAP’s infringement of Siebel’s copyrights would have resulted in \$164 million in “negative financial impacts” for Oracle. As to Oracle database software, Oracle’s expert testified that the licensing fees for the illicit copies of Oracle database software would total \$55.6 million, based on what an Oracle executive claimed that Oracle would charge.

We accord limited weight to Oracle’s expert’s conclusion that Oracle stood to lose more than \$1.3 billion from TomorrowNow’s infringement of PeopleSoft and J.D. Edwards copyrights. Oracle’s expert generated this estimate by assuming that Oracle would lose the 1,375 customers that SAP hoped would switch from Oracle software to SAP software, as outlined in SAP’s “Assumptions” presentation slide. For the reasons discussed above, the “Assumptions” are not a particularly reliable source of objective evidence. Further, as we describe below in our discussion of remittitur, Oracle presented evidence of its actual lost profits, which were at most \$120.7 million—far less than \$1.3 billion. Like the evidence of the low acquisition price of TomorrowNow, this lost profits number casts substantial doubt on SAP’s internal “Assumptions.”

Oracle also presented evidence of the acquisition cost of PeopleSoft and Siebel. Oracle emphasized that it “had just paid \$11 billion, in an arms-length transaction, to acquire PeopleSoft and the accompanying intellectual property that SAP and [TomorrowNow] admittedly stole.” It had also paid more than half that—\$6 billion—to acquire Siebel Systems. An Oracle executive testified that the \$1.656 billion hypothetical-license damages estimate provided by Oracle’s trial expert was “conservative” because it was “around 10 percent of what we actually paid for the . . . intellectual

property.” She further testified that Oracle expected that PeopleSoft, J.D. Edwards, and Siebel would generate \$1.7 billion annually in maintenance revenue alone.

Oracle failed, however, to present evidence of the relationship between the value of owning PeopleSoft, J.D. Edwards and Siebel, on the one hand, and the cost of granting a license to use its copyrights in a limited way for a limited period, on the other. *See Wall Data*, 447 F.3d at 786 (discussing “actual use” of copyrighted works). In short, while Oracle’s acquisition price of PeopleSoft and Siebel is evidence of the immense value that Oracle saw in those companies, it told the jury little of what a hypothetical license for a specific use of their copyrights for a brief period would have cost Oracle.

c. Value of Hypothetical License

Evidence of SAP’s projected benefits and Oracle’s projected costs is relevant to the fair market value of a license for the use of Oracle’s copyrights during the period of TomorrowNow’s infringement. But given the type of objective evidence on which our caselaw has relied in affirming past hypothetical-license damage awards, we hold that the district court correctly concluded that Oracle failed to present sufficient non-speculative evidence to support the jury’s award.

Our caselaw provides guidance as to a copyright plaintiff’s burden in proving hypothetical-license damages. In one case discussed in particular detail by the parties, we upheld a hypothetical-license award as non-speculative where Timex Corporation used Polar Bear Productions’ copyrighted film footage without the latter’s authorization. *Polar Bear*

Prods., 384 F.3d at 703, 709. Timex had sponsored the production of the film footage at issue “[i]n return [for] an exclusive one-year license to use the film in its promotional materials.” *Id.* at 704. Under the parties’ agreement, beyond the one-year period “Timex had the option of retaining Polar Bear to produce [an additional ten-minute promotional] video at a price to be determined by the parties,” but Timex decided “to produce the tape separately.” *Id.* Despite Polar Bear’s warnings that Timex had no right to use images from the original film, Timex did so anyway. *Id.* Timex’s infringement did not stop there: it “used Polar Bear’s copyrighted images on two other occasions—in a promotional campaign associated with the soft drink Mountain Dew and in videos used to train salespeople at a large national retailer.” *Id.*

At trial, Polar Bear presented evidence that before Timex infringed its copyright it had quoted Timex a price of \$37,500 for preparing a ten-minute video. *Id.* at 709. Polar Bear also presented expert testimony as to the value of a hypothetical-license fee covering Timex’s infringing activity that was “predicated” on this price. *Id.* The jury awarded Polar Bear \$115,000 in lost license fees. *Id.* at 705 n.3.

We upheld the hypothetical-license damage award despite Timex’s arguments that the award was speculative. *Id.* at 709. We observed that there was little danger that the \$37,500 fee, on which the calculation of the price of the hypothetical license was based, “was contrived or artificially inflated” because “[t]he proposed license fee was proffered before Timex’s infringement.” *Id.* We explained: “Having taken the copyrighted material, Timex is in no better position to haggle over the license fee than an ordinary thief and must

accept the jury's valuation unless it exceeds the range of the reasonable market value." *Id.*

Two years later, we upheld another hypothetical-license damage award in *Wall Data*. See 447 F.3d at 786–87. In that case, “[t]he Los Angeles County Sheriff’s Department purchased 3,663 licenses to Wall Data’s computer software, but installed the software onto 6,007 computers.” *Id.* at 773 (footnote omitted). After concluding that the Department’s activity constituted copyright infringement, *id.* at 774, we affirmed the jury’s hypothetical-license damages award of somewhere between \$53 and \$90 per infringed copy as non-speculative where (1) “the average price Wall Data charged the vendor that sold software to the Sheriff’s Department was \$189,” (2) “government entities were charged \$113 per copy,” and (3) the Sheriff’s Department had originally paid \$85 per copy. *Id.* at 786–87. In upholding the award, we observed that the jury’s award was “within the range sustainable by the proof.” *Id.*

One year after *Wall Data*, we upheld another hypothetical-license damage award in a case involving the unauthorized use of images. See *Jarvis*, 486 F.3d at 528. The plaintiff in *Jarvis* was “a professional photographer who created several thousand photographic slides . . . for K2, Inc. (‘K2’), a maker of outdoor sporting goods.” *Id.* at 527. In that case, K2 was found to have infringed the photographer’s copyrights, and we upheld the district court’s damages calculation where it had “employed reasonable estimates of the market value of the infringed images.” *Id.* In so holding, we outlined the numerous pieces of evidence on which the district court had relied in determining the final award:

The court's findings show that it examined at least six estimates of the fair market value of Jarvis' infringed images: (1) the testimony of Jarvis' expert witness Richard Weisgrau that . . . Jarvis' images were worth \$1,500 to \$5,000 each; (2) the testimony of a senior K2 executive that he would pay \$5–20 for an image to be used online and \$500–750 for a glossy high-definition image for a print advertisement or magazine cover; (3) Jarvis' compensation of \$10,000 for the 2,516 images he delivered to K2 under the 2000 Agreement; (4) Jarvis' compensation of \$7,200 for the 1,210 images he delivered to K2 under the 2001 Agreement; (5) Jarvis' compensation of \$3,000 for seven images he delivered to K2 in 2001; and (6) Jarvis' settlement offer of \$15,520 for all images infringed by K2. Although these estimates informed the district court's calculations, it ultimately cited Jarvis' own damages figures for images used in print and then halved the average of these figures to determine the damages per online use. The court based its halving on its finding that "the fair market value of an online use is less than the average fair market value of a print use." This methodology produced a damages figure of \$461 per online use, a figure below Weisgrau's estimate but well within the range of the other five estimates.

Id. at 534 (emphasis omitted). In explaining why we upheld the district court's award, we wrote:

The court's inquiry was objective, avoiding references to what Jarvis thought he should have earned or wished he had charged. The court also examined the financial perspectives of both the willing buyer (in the form of evidence about what K2 typically pays for images and what it specifically paid Jarvis in its prior dealings with him) and the willing seller (in the form of Jarvis' earlier deals with K2 and his revenue from image databanks) at the hypothetical time of sale. Furthermore, the court gave logical reasons why it discounted Weisgrau's testimony; according to the court, he "relied almost exclusively on the Getty website for his figures and unrealistically used a monthly licensing fee as the basis for his valuations." Finally, the figure the court adopted was near the center of the range supported by the evidence.

Id. at 534–35 (footnotes omitted).

The evidence presented by Oracle provides a much more speculative basis for calculating hypothetical-license damages than the evidence in *Polar Bear*, *Wall Data*, and *Jarvis*. Although a copyright plaintiff need not demonstrate that it would have reached a licensing agreement with the infringer or present evidence of "benchmark" agreements in order to recover hypothetical-license damages, it may be difficult for a plaintiff to establish the amount of such damages without undue speculation in the absence of such evidence. *Cf. Getaped.com, Inc. v. Cangemi*, 188 F. Supp. 2d 398, 405–06 (S.D.N.Y. 2002) (recognizing the difficulty of determining a non-speculative hypothetical-license damages amount when

the infringer is a direct competitor). Here, because Oracle has no history of granting similar licenses, and has not presented evidence of “benchmark” licenses in the industry approximating the hypothetical license in question here, Oracle faced an uphill battle.

Oracle bore the burden of proving the fair market value of the hypothetical license in question. We agree with the district court that Oracle failed to provide sufficient objective evidence of the market value of the hypothetical license underpinning the jury’s damages award. We therefore affirm the district court’s grant of JMOL to SAP on that ground.

B. District Court’s Grant of a New Trial

A new trial is warranted when “the verdict ‘is against the great weight of the evidence, or it is quite clear that the jury has reached a seriously erroneous result.’” *SEC v. Todd*, 642 F.3d 1207, 1225 (9th Cir. 2011) (quoting *EEOC v. Pape Lift, Inc.*, 115 F.3d 676, 680 (9th Cir. 1997)). We will reverse the district court only if it abused its discretion in granting a new trial. *Id.* For the same reasons as those laid out in our discussion of the district court’s grant of JMOL to SAP, we conclude that the district court did not abuse its discretion in concluding that “the verdict [was] against the great weight of the evidence,” *id.* (internal quotation marks omitted).

C. District Court’s Damages Limitation for a New Trial

Oracle contends that, even if the district court did not abuse its discretion in granting SAP’s motion for a new trial, the district court erred in limiting the second trial to damages based on a lost-profits and infringer’s-profits theory, barring Oracle’s pursuit of hypothetical-license damages. According

to Oracle, the district court “changed the rules after the close of proof” and therefore should have provided Oracle with another opportunity to meet the post-trial standard pronounced by the district court.

We disagree. We have previously made clear that hypothetical-license damages “are ‘what a willing buyer would have been reasonably required to pay to a willing seller for plaintiffs’ work.’” *Jarvis*, 486 F.3d at 533 (quoting *Frank Music Corp.*, 772 F.2d at 512). Thus, “[e]xcessively speculative claims of damages are to be rejected.” *Id.* at 534. The district court applied this well-established standard in granting JMOL to SAP. Oracle was well aware of the legal standard that it was required to meet, and we decline to give Oracle a second bite at the apple.

D. Remittitur

A remittitur must reflect “the maximum amount sustainable by the proof.” *D & S Redi-Mix*, 692 F.2d at 1249. Here, the district court set the remittitur at \$272 million, which was the lower of two amounts calculated by Oracle’s expert for lost profits and infringer’s profits. This figure reflected \$36 million in Oracle’s lost profits, and \$236 million in SAP’s infringer’s profits. As the district court noted, however, Oracle’s expert had also testified to a higher figure: \$408.7 million, based on \$120.7 million in lost profits through 2015 rather than 2008, “to reflect the ongoing impact” of SAP’s infringement on Oracle’s profits, and \$288 million in infringer’s profits, which included three customers that the lower, \$236-million estimate did not.

Oracle argues that the district court erred in setting the remittitur at \$272 million, given that the very expert whose

testimony the district court had credited also testified to the higher amount of \$408.7 million. Therefore, according to Oracle, the maximum amount of damages sustainable by the proof under a lost- and infringer's-profits theory was \$408.7 million instead of \$272 million.

We agree with the district court that, as to infringer's profits, \$236 million was the maximum amount sustainable by the proof. As the district court pointed out, Oracle's expert "testified that his calculation of infringer's profits 'ranges down' to \$236 million because there are three customers 'where there's some issues still that sort of exist about the role of TomorrowNow in converting those customers to SAP.'" Because Oracle's expert was unsure about these three customers, the district court deemed the \$288-million infringer's-profits estimate to be "unduly speculative." We agree. "[A] plaintiff in a § 504(b) action must establish [a] causal connection" "between the infringement and the monetary remedy sought." *Polar Bear Prods.*, 384 F.3d at 708. Because of its expert's equivocation as to whether the loss of these three customers was attributable to TomorrowNow's infringement, Oracle has failed to establish this requisite causal connection and therefore cannot recover damages related to those three customers.

We disagree, however, with the district court's adoption of the \$36-million lost-profits figure as the maximum amount sustainable by the proof and conclude that the district court should have chosen the \$120.7-million lost-profits figure instead. Oracle's expert assumed, for both his lower and higher lost-profits estimates, that some of Oracle's customers switched from Oracle to SAP permanently as a result of TomorrowNow's infringement. The higher figure included

Oracle’s lost profits for seven years after TomorrowNow shut its doors in 2008, whereas the lower figure accounted for Oracle’s lost profits only through 2008. In other words, the higher figure reflected the reality that, even after TomorrowNow ceased operations, Oracle had lost an ongoing stream of revenue from its former customers who permanently remained with SAP.

By choosing the \$36-million lost-profits amount for the remittitur, the district court necessarily accepted that some of Oracle’s customers switched to SAP due to TomorrowNow’s infringement. Moreover, as Oracle’s expert explained, in the enterprise software market, loss of a customer is typically permanent. Therefore, once the district court accepted the fact that TomorrowNow’s infringement led some customers to switch to SAP, common sense suggests that Oracle would suffer from the loss of those customers beyond the date that TomorrowNow ceased operating. As to the amount of harm Oracle suffered, Oracle presented evidence at trial that it would be “conservative” to assume that its typical relationship with a customer lasts ten years. This supports Oracle’s expert’s use of 2015 as an end date for the higher lost-profits figure—ten years after SAP acquired TomorrowNow.

By failing to select a remittitur that reflected the maximum amount sustainable by the proof, the district court abused its discretion in selecting the \$36-million lost-profits figure rather than the \$120.7-million one. We therefore vacate and remand to the district court for it to offer Oracle the choice between a \$356.7-million remittitur—combining the highest lost-profits and infringer’s-profits estimates sustainable by the proof—and proceeding to a second trial.

E. Orders Relevant to a Second Trial

Oracle appeals four rulings relevant to a second trial, if one were to occur. We address them in turn.

1. Expert Testimony of Stephen Clarke

Oracle appeals the district court's denial of its motion to exclude testimony by SAP's damages expert Stephen Clarke during the first trial, and seeks an order excluding his testimony during a second trial. *See Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). We review for abuse of discretion, *United States v. Morales*, 108 F.3d 1031, 1035 (9th Cir. 1997) (en banc), and affirm the district court. Oracle contends that "Clarke's only training and experience is in accounting," such that he is unqualified to comment on consumer behavior. Oracle misstates Clarke's qualifications. He has a degree in Management Sciences, has taught university-level economics, and has extensive experience as an intellectual property damages expert. Oracle further contends that Clarke's "testimony [during the first trial] was unreliable and outside his expertise" because he relied on Internet research in his market study. Oracle fails to explain why the Internet is an inappropriate resource for conducting market research. Moreover, Oracle had ample opportunity to cross-examine Clarke about his underlying sources and discredit them. The district court did not abuse its discretion in allowing Clarke to testify in the first trial, and Oracle has advanced no reason to exclude his testimony in a second trial.

2. Jury Instruction

Oracle contends that the district court erred in rejecting its proposed instruction that would have told the jury that Oracle

could recover both hypothetical-license damages and infringer's profits. It asks us to hold on appeal that such an instruction should be given in a second trial. We need not decide this question because, as we have held above, hypothetical-license damages may not be sought in a second trial.

3. Research and Development Costs

Oracle contends that the district court erred in ruling that a calculation of hypothetical-license damages could not take into account the expenditures for research and development costs that SAP would have incurred if it had tried to develop non-infringing software. It asks us to hold on appeal that such hypothetical expenditures should be taken into account in calculating hypothetical-license damages in an second trial. For the same reason we do not reach the question about Oracle's proposed jury instruction, we do not reach this question.

4. Motion in Limine

Oracle contends that the district court erred in denying Oracle's motion in limine, filed in anticipation of the second trial, seeking to preclude SAP from introducing evidence of its overhead expenses in order to deduct them from any calculation of infringer's profits. Oracle recognizes that 17 U.S.C. § 504(b) permits an infringer to introduce evidence of "deductible expenses" to offset the calculation of infringer's profits under that statute. According to Oracle, however, our caselaw precludes willful infringers from deducting overhead costs. Oracle relies heavily on dicta in *Frank Music Corp.*, 772 F.2d at 515 ("A portion of an infringer's overhead properly may be deducted from gross

revenues to arrive at profits, at least where the infringement was not willful, conscious, or deliberate.”). Because the second trial has not yet occurred, and evidence presented at trial may be relevant to any ultimate ruling by the district court, we decline to reach this question. We note that the district court is free to reconsider its decision in advance of, or during, a second trial if one should occur.

Conclusion

We affirm the district court’s grant of judgment as a matter of law to SAP, as well as the district court’s grant of SAP’s motion requesting a new trial conditioned on Oracle’s rejection of a remittitur, on the ground that the jury reached its \$1.3 billion verdict based on undue speculation. We also affirm the district court’s ruling barring Oracle from presenting hypothetical-license damages at any new trial, and affirm the district court’s ruling allowing SAP’s expert Clarke to testify. We conclude, however, that the district court erroneously set the remittitur at \$272 million. We therefore vacate and remand with instructions for the district court to offer Oracle the choice between a \$356.7 million remittitur and a new trial. Each side shall bear its own costs on appeal.

AFFIRMED in part, VACATED in part, and REMANDED.