

# **EXHIBIT A**

UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF CALIFORNIA  
OAKLAND DIVISION

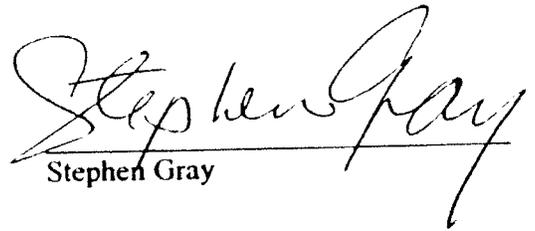
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ORACLE USA, INC., et al,	)	
	)	
<b>Plaintiff</b>	)	
	)	
v.	)	<b>Case No.: 07-CV-1658 PJH (EDL)</b>
	)	<b>Jury Trial Demanded</b>
SAP AG, et al.,	)	
	)	
<b>Defendants</b>	)	

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**EXPERT REPORT OF STEPHEN GRAY**

DATE: 6/3/2010

  
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Stephen Gray

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# 1. Introduction

Plaintiffs Oracle USA, Inc. (“OUSA”), Oracle International Corporation (“OIC”), Siebel Systems Inc. (“SSI”), and Oracle EMEA Limited (“OEMEA”) (together “Oracle” or “Plaintiffs”) maintain suit against SAP AG, SAP America, Inc., and TomorrowNow, Inc. (“TomorrowNow”) (collectively referred to as “Defendants”). The suit was originally filed in March 2007, and the Fourth Amended Complaint, dated August 18, 2009, sets forth the currently alleged facts and causes of action.

I have prepared this report (“Report”) at the request of Defendants. This Report sets forth my analysis and opinions in detail and provides the bases for my opinions. I was asked by Defendants to review and respond as appropriate to a report entitled “Analysis of SAP TN’s Collection and Use of Oracle Software and Related Materials” (the “Mandiant Report”).<sup>1</sup> The Mandiant Report was first submitted on November 16, 2009, and has been supplemented several times. The version of the Mandiant Report that I refer to in this Report was last supplemented on February 12, 2010. Specifically I was asked to analyze and opine on the opinions, work product, and analysis contained in the Mandiant Report in the following areas:

- TomorrowNow’s alleged improper access to Oracle’s support websites;
- TomorrowNow’s alleged copying, modification, distribution, and further use of Software and Support Materials (“SSMs”) allegedly downloaded from Oracle’s support websites;
- Any comparison between the Oracle SSMs allegedly obtained by TomorrowNow and Oracle’s Registered Works asserted in this Action;
- TomorrowNow’s alleged receipt, copying, modification, distribution, and further use of Oracle Enterprise Application and Database Software;

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<sup>1</sup> I note that throughout the Mandiant Report there are many references to other parties, e.g., “Mandiant,” and “the team,” that participated in the writing of the report. Also, on occasion in the Mandiant Report, there are references to Kevin Mandia’s interaction with these other parties, e.g., “I QC’d...[some work product element].” The extent of the activity of these other parties is not disclosed along with whether the opinions in the report are actually the other parties’ opinions or that of Kevin Mandia.

- Any comparison between Oracle Enterprise Application and Database Software and Oracle's Registered Works asserted in this Action;
- Analysis of TomorrowNow's method for providing support allegedly using Oracle Enterprise Application Software and SSMs.

At this time, other than what is attached to, submitted with, or contained in this Report, I have not created any additional exhibits that may be used as a summary of, or as support for, my opinions. I reserve the right to create any additional summaries, tutorials, demonstrations, charts, drawings, tables and/or animations that may be appropriate to supplement and demonstrate my opinions at trial.

## **2. Retention**

I have been retained by Defendants as an expert in this case. No part of my compensation is dependent upon the outcome of this case or any issue in it. I am compensated at the rate of \$370/hour, plus reimbursement for expenses. I have no other interests in this litigation or with any of the parties.

## **3. Qualifications**

I am an independent consultant. All of the opinions stated in this Report are based on my understanding of the facts, my own personal knowledge and professional judgment. In forming my opinions, I have relied on my knowledge and experience in distributed item processing systems; software development practices; programming, including object-oriented programming; and on the documents and information referenced in this Report.

Since the mid-1970s, I have designed, developed, and deployed computing systems and products that operate in distributed computing environments. These computer systems and products involve multiple remote computers that each play a role in solving computation or information processing problems. As such, I have acquired expertise that includes, but is not

limited to, the areas of distributed computing architecture and design, client-server system technology, web-based system technology, distributed and relational databases, local area and wide area networks, and various programming languages used in the development of those systems and products. I have been employed by or retained as a consultant, including acting as a litigation consultant, for numerous companies such as Burroughs, Filenet, Fujitsu, Marriott Corporation, MCI, Northern Telecom, Olivetti, TRW, and Xerox, as well as other companies.

### 3.1 Software development methodology

Throughout my career, I have participated in many software development projects both as an individual contributor and in supervisory roles. These experiences are identified in my *curriculum vitae* attached as Appendix 1 to this Report. I have served as an expert in several matters where software development was at issue, e.g., HealthFirst v. HealthTrio; Metilinx v. Hewlett-Packard; S. Rakoff et. al. v. Dot Com Group, A. Nash et al.; Eyefinity, Inc. vs. Entigo, Inc.; and others.

### 3.2 Code development and reading

As my *curriculum vitae* shows, much of my career has been spent as a software development professional. As a software development professional, I have had numerous occasions to develop and review bodies of source code. I have developed and analyzed source code written in several variants of C, SQL, COBOL, RPG, variants of Basic, Java, Perl, several Assembler languages, and others. For example, as an individual contributor at Xerox during the mid-1980s to 1990, I evaluated the quality of source code from third party software providers for possible inclusion in the Xerox product line. Also, as another example, I evaluated the source code of several application software packages for completeness and maintainability for possible inclusion into the NTN product line in 2000-2001. During my early career, I spent time

maintaining source code written by others. In each of these assignments, I analyzed the source code to identify the data structures, logical flow, algorithms and other aspects.

In addition, on several occasions, I have served as an expert witness where software analysis was required to render an opinion. These matters include *Autobytel v. Dealix*; *NetRatings v. Coremetrics, et. al.*; *Ampex v. Kodak, et. al.*; *AB Cellular v. City of Los Angeles*; *Oracle v. Mangosoft*; *Harrah's Casino v. Station's Casino*; *IBM v. NCR Comten*; and others.

### 3.3 Programming, including object-oriented programming

During my career as a software development professional, I have designed and written many software programs. Object-oriented software program design and development was heavily used in several of these projects, including, but not limited to:

- Architecting e-Commerce applications for legacy interoperability
- Participating in the architecture definition and design of a highly scalable, high performance device controller for multifunction document processing products
- Designing an object-oriented front end to the database so that the UNIX platform could execute Sybase applications

### 3.4 Litigation Support in Copyright Matters

Also, I have served as a consultant in matters where I performed Copyright analysis, including *MathWorks v. Comsol* and *IBM v. NCR Comten*.

Additional details of my education and work experience are set forth in my *curriculum vitae*, which is attached as Appendix 1 to this Report. I have not published any articles in the last ten years.

I have testified as an expert at trial or by deposition within the preceding 4 years, as set forth in the list of testifying cases attached as Appendix 2 to this Report.

## 4. Preparation for this Report

In conducting my analysis and forming my opinions, I have considered or relied upon, in addition to my own knowledge and experience, (a) the documents and things listed in Appendix 3 as well as (b) any other references referred to or cited in this Report.

All of the opinions stated in this Report are based on my understanding of the facts, my own personal knowledge and experience and my professional judgment. I note that there have been several supplementations to the Mandiant Report. I expect and reserve the right to update, supplement, or amend this Report in view of additional information obtained through discovery or other information that may become available between now and trial that may affect the statements and/or opinions set forth in this Report.<sup>2</sup>

## 5. Legal Understandings

Counsel for Defendants provided me with the following legal understandings:

I understand that copyright law only protects the Protected Expression within a Registered Work.<sup>3</sup>

I understand that under the current Copyright Act, ideas, procedures, processes, systems, concepts, methods of operation, principles, and discoveries are not considered Protected Expression.<sup>4</sup>

I understand that the current Copyright Act explicitly states that there is no copyright protection for a concept.<sup>5</sup>

It is my understanding that under copyright law, a court will not find infringement if it concludes the copying of the Protected Expression was *de minimis*.<sup>6</sup> Further, it is my

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<sup>2</sup> I further understand that counsel for Oracle has been providing written responses to specific questions concerning missing information from the Mandiant Report and that the last of these responses was received on March 12, 2010. I am still in the process of reviewing these responses and the associated productions that came with them and reserve the right to supplement based on these responses.

<sup>3</sup> 17 U.S.C. §§ 101, 102(a), 411, and 412 (2009).

<sup>4</sup> 17 U.S.C. § 102(b) (2009).

<sup>5</sup> 17 U.S.C. § 102(b) (2009).

understanding that *de minimis* copying is copying that is so small, either from a quantitative or a qualitative perspective, that one cannot justify a finding of substantial similarity.<sup>7</sup>

## **6. Overview of Mandiant Report**

### **6.1 Complexity and Length of the Mandiant Report**

The Mandiant Report consists of a 100 page main document titled “Analysis of SAP TN’s Collection and Use of Oracle Software and Related Materials” and a series of appendices contained and referenced in another document titled “Appendices to Report - Review of SAP TN.”<sup>8</sup> The appendices portion of the report is 126 pages.<sup>9</sup> Analysis, findings and opinions are found interspersed throughout the 226 pages of the Mandiant Report.<sup>10</sup> In addition, there are over 378 files that purport to support the main document and the appendices.<sup>11</sup>

### **6.2 Inter-related volumetrics**

Much of the Mandiant Report is devoted to attempting to count the volume of certain artifacts found on TomorrowNow servers that allegedly represent Copyright infringement. In some instances, these volumes are actual counts and in others they are estimates. For the estimated counts, the Mandiant Report relies on the analysis of the report of another Oracle witness, Dr. Daniel Levy.<sup>12</sup> The Mandiant and Levy Reports both rely, to some extent, on each other. For example, the Mandiant Report relies on Levy for the estimates and the Levy Report relies on the Mandiant Report for several fundamental volumetrics. Of course this means that

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<sup>6</sup> 2 Melville B. Nimmer and David Nimmer, Nimmer on Copyright, § 8.01[G] (Matthew Bender, Rev. Ed.).

<sup>7</sup> 4 Melville B. Nimmer and David Nimmer, Nimmer on Copyright, § 13.03[F][5] (Matthew Bender, Rev. Ed.).

<sup>8</sup> February 12, 2010 Supplemental Mandiant Report (herein after “Mandiant Report”); February 12, 2010 Supplemental Mandiant Appendices (herein after “Mandiant Appendices”).

<sup>9</sup> Mandiant Appendices.

<sup>10</sup> Mandiant Report; Mandiant Appendices.

<sup>11</sup> *Id.*

<sup>12</sup> February 12, 2010 Expert Report of Daniel S. Levy, Ph.D. (“Levy Report”).

any errors in the fundamental volumetrics in the Mandiant Report will be compounded by analysis and findings in the Levy Report, which in turn could corrupt the Mandiant Report findings and conclusions.

### 6.3 Mandiant continues to supplement

The Mandiant Report and the accompanying files, as well as the Levy Report have been supplemented several times since being originally submitted on November 16, 2009. The latest version of both the Mandiant and Levy Reports is February 12, 2010. Each supplementation has produced new data. For example, the latest supplementation of the Mandiant Report corrects an error with a previous version that significantly lowered the number of allegedly infringing instances of a specific accusation.<sup>13</sup> In other words, these supplementations have not been simply matters of clerical error.

### 6.4 General Problems with the Mandiant Report

#### 6.4.1. Lack of Protected Expression analysis

A problem that permeates the Mandiant Report is the lack of analysis of Oracle's Registered Works with respect to identification of the Protected Expression that Oracle is asserting has been infringed by TomorrowNow. I reviewed the *curriculum vitae* of Kevin Mandia as well as his characterization of his qualifications regarding the opinions in the Mandiant Report. I was unable to identify any experience with Copyright analysis or even the kind of experience that would render Mr. Mandia qualified to opine on matters related to Copyright analysis. However, as Oracle's attorneys make clear in the Complaint<sup>14</sup> filed in this matter, the basis for this lawsuit is an accusation of Copyright infringement. The Mandiant

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<sup>13</sup> Mandiant Report, Conclusion 1, Section A, ¶¶ 228-233.

<sup>14</sup> FOURTH AMENDED COMPLAINT FOR DAMAGES AND INJUNCTIVE RELIEF FOR: (1) COPYRIGHT INFRINGEMENT; [...], dated August 18, 2009.

Report opinions related to the presence of Protected Expression in the Registered Works either assume Protected Expression or rely on the statements and opinions of others, primarily Oracle employees. The Mandiant Report contains no independent analysis or assessment from Kevin Mandia of whether any of the Registered Works contain Protected Expression.

In some cases, the Mandiant Report simply assumes Protected Expression. For example, in the Mandiant Report section identifying assumptions, the Mandiant Report states that “file based objects” such as SQR, SQC and COBOL files and “online objects” such as components of a PeopleSoft product that are stored in the database are assumed to contain Protected Expression: “File-based Objects and Online Objects incorporate a substantial amount of Protected Expression.”<sup>15</sup> Additionally, the Mandiant Report makes this same assumption in its Summary of Conclusions section: “Based on this analysis, the extent of copying, and my understanding that large portions of these copies constitute Protected Expression, I conclude that these copies contain material protected by the copyrights Oracle asserts in this action.”<sup>16</sup> The problem with this conclusion is found in the lack of clarity and meaning in the words of the assumption, and the conclusion itself is mostly a restatement of the assumption, rather than an independent finding based on the assumption. The Mandiant Report asserts, without any basis, that there is a “substantial amount” of Protected Expression in the objects. This acknowledges that at least some of the content of the files is not Protected Expression. And, the Mandiant Report does not identify, for any Registered Work for which Oracle sought protection, what the Protected Expression is. I understand that it is only the Protected Expression within a Registered Work that is protected by the Copyright Act. I cannot fully analyze any underlying accusation of Copyright infringement in Oracle’s Registered Works based on the finding and opinions in the

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<sup>15</sup> Mandiant Report, ¶ 35.

<sup>16</sup> Mandiant Report, ¶ 7.

Mandiant Report because the report has not identified what, if anything, is the Protected Expression in the Registered Works. The Mandiant Report simply assumes this.

In other cases, the Mandiant Report relies on the opinions of Oracle employees as the basis for the statements that a given Registered Work contains Protected Expression. For example, the Mandiant Report overview of PeopleSoft products states that since certain Oracle employees asserted that SQR, SQC and COBOL files contain creative (i.e., allegedly protected) expression, it must be so:

In conversations with Oracle employees including Oracle's Chief Corporate Architect, Edward Screven, and Norm Ackermann, I have been informed that COBOL, SQR, and SQC files are the result of creative expression and embody a developer's particular choices.<sup>17</sup>

Again, given that Mr. Screven's and Mr. Ackerman's alleged expert opinions regarding Protected Expression have not been properly disclosed, I cannot fully evaluate the accusation of Copyright infringement. Moreover, other than stating their titles as employees for the Plaintiffs in this case, the Mandiant Report does not establish the alleged expertise of Mr. Screven or Mr. Ackerman that would support any alleged expert opinions they may have. I also understand that neither of them have been disclosed as testifying experts in this case.<sup>18</sup>

I am surprised that the Mandiant Report either simply assumes or relies on the assertions of interested third parties for the statements and conclusions regarding the Protected Expression within Oracle's Registered Works. I have performed analysis to determine the nature and extent of expression within software on more than one occasion and it is a complicated undertaking. The Mandiant Report does not contain any such analysis. Should other information become

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<sup>17</sup> Mandiant Report, ¶ 112.

<sup>18</sup> In fact, this is but one example of the fact that portions of the Mandiant Report are predicated on undisclosed expert opinion. *See, e.g.*, Mandiant Report, ¶ 108 ("Mandiant provides citations to these interviews in some places within this report for reference, but those citations are non-exclusive, as the information provided by employees and experts has broadly informed my understanding of the evidence.").

available regarding Mr. Mandia's qualifications in this regard or that provides an independent analysis of the allegedly Protected Expression in the Oracle Registered Works, then I will review it at that time and reserve the right to offer further opinions on this issue.

6.4.1.1 The Mandiant Report's assumptions regarding Protected Expression lead to overbroad conclusions

In the Summary of Conclusions, the Mandiant Report asserts that TomorrowNow "copied, downloaded, modified, distributed, and used a significant amount of material protected by the copyrights Oracle asserts in this action."<sup>19</sup> In the next paragraph, the report notes that Mandiant "identified significant copies of Objects and SSMs that *Oracle asserts* are protected by its copyrights."<sup>20</sup> In this same paragraph, the report states that it is Mandiant's understanding that the objects are "Protected Expressions" and that Mandiant understands that "Environments updated with Fixes constitute Derivative Works."<sup>21</sup> There is no identification of the basis for these assumptions other than the reference to Oracle's assertions. Moreover, the Mandiant Report turns these assumptions into a conclusion that does not logically follow from these assertions and assumptions: "Therefore, I conclude that SAP TN downloaded, modified, distributed and used a significant amount of material protected by the copyrights Oracle asserts in this action."<sup>22</sup> Finally, without an explanation of what these assumptions are based on, how they were reached, and whether any evaluation was done to support these assumptions, I cannot fully evaluate the conclusion.

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<sup>19</sup> Mandiant Report, ¶ 14.

<sup>20</sup> Mandiant Report, ¶ 15 (emphasis added).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

6.4.2. The Mandiant Report depends on what customers are “licensed” to, but there is no review or analysis of any license agreements

Another problem that undermines the findings and opinions in the Mandiant Report relates to the assertion that certain TomorrowNow behaviors were performed that violated the license agreement between Oracle and TomorrowNow’s customers. However, the Mandiant Report offers no analysis of any license between Oracle and any of their customers which would establish any circumscribed behavior. Instead, as with the lack of analysis regarding Protected Expression, the Mandiant Report simply assumes that TomorrowNow’s activities resulted in license violations.

For example, the terms “contamination,” “cross-use,” and “cross-use contamination,” which are heavily relied upon in the Mandiant Report’s analysis and conclusions, are all admittedly dependent upon customer license agreements.<sup>23</sup> Additionally, the Mandiant Report section discussing TomorrowNow’s allegedly improper downloading of Oracle material from an Oracle website reports on the analysis of Oracle supplied “licensing information” for five JDE customers<sup>24</sup> to determine which products the customers had licensed. However, the analysis did not include a review by Mandiant of any actual license agreements, including what limitations the licenses imposed, if any, on material readily accessible to each of the customers on the Oracle website. No analysis is offered in the Mandiant Report that indicates whether these customers were allowed to access material on the Oracle website relating to products that they were not licensed for, e.g., white papers or promotional material. Moreover, there is no analysis, or even reference to, PeopleSoft or Siebel customer licenses of any kind.

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<sup>23</sup> Mandiant Report, ¶¶ 54-56.

<sup>24</sup> Mandiant Report, ¶ 205. Those customers were Merck, Oce, Yazaki, SPX, and Metro Machines.

The Mandiant Report also does not perform any review or analysis of any Terms of Use provisions, and thus does not analyze the relationship between TomorrowNow's downloads, and use of automated downloading tools, to any such provisions. Further, the Mandiant Report is silent on the functions within the supposedly misused Oracle websites that enforced any supposed license restrictions with regard to downloads.

## **7. Certain Assumptions in the Mandiant Report**

As noted above, the Mandiant Report makes a variety of assumptions that are of questionable foundation and are potentially misguided. While not exhaustive, below is a discussion of the types of issues that exist with many of the assumptions in the Mandiant Report.

### **7.1 "Derivative Works" Assumption**

The Mandiant Report makes several assumptions regarding Derivative Works based on interested parties' opinions. Some of these assumptions call into question the analysis, findings and opinions contained in the rest of the Mandiant Report. The Derivative Works assumptions from the Mandiant Report are shown below:

35. The following represent my assumptions for Derivative Works:
  - File-based Objects and Online Objects incorporate a substantial amount of Protected Expression.
  - Modification of a File-based Object substantially transforms the File-based Object.
  - A File-based Object applied to an Environment substantially transforms that Environment.
  - A DAT file applied to an Environment substantially transforms that Environment.
  - The Database Schema incorporates a substantial amount of Protected Expression.
  - Modification to the Database Schema substantially transforms that Database.<sup>25</sup>

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<sup>25</sup> Mandiant Report, ¶ 35.

#### 7.1.1. Use of the term “substantial”

The first problem with the Derivative Works assumptions is that there are several references to the term “substantial.” The first and fifth bullets refer to “a substantial amount of Protected Expression.” As discussed above, the use of this term acknowledges that some of the File-based Objects and Online Objects and Database Schema do not contain Protected Expression. Without an understanding of what, if any, Protected Expression is contained within the objects or schema, the assumption is too broad and leads to generalizations that may be baseless.

For example, the assumption would lead to the conclusion that any copying of the work is a Copyright violation, regardless of whether it contains Protected Expression. However, this is the exact question that cannot be determined without an analysis of whether the protected portions of the work were copied. The other bullets refer to modifications that “substantially transform” file-based objects, environments or databases. The use of the term “substantial” is ambiguous. A one line change to a COBOL module may be a substantial transformation or it may not because it may substantially impact the functionality of the program or it may not. Also, the use of “substantial” with respect to transformations of components implies that some transformations are not “substantial.” A thorough evaluation of the statements in the Mandiant Report asserting improperly derived works cannot be made absent an analysis showing what substantial means at a component level.

#### 7.1.2. Evaluation of CBL, SQR, and SQC as alleged Derivative Works

The Mandiant Report uses this flawed assumption regarding Derivative Works when accusing TomorrowNow of creating PeopleSoft COBOL, SQR and SQC file Derivative Works. For the reasons stated above and below, using the Mandiant Report Derivative Works assumptions as a basis, a thorough evaluation of the accusation cannot be made.

I understand that facts are not copyrightable. Thus, the declaration of the value of  $\pi$  may not be protected. Likewise, altering the spacing on a government required reporting form may not “substantially” impact the functionality of the system or program. Using the same logic, the declarations relating to tax rates in programs need to be analyzed to determine whether, and what portions, if any, of the file are protected. The Mandiant Report does not provide any identification of what, if anything, is protected in any PeopleSoft COBOL, SQR or SQC file and therefore cannot identify which alleged TomorrowNow modifications to which COBOL, SQR or SQC file constitute Copyright infringement.

#### 7.1.3. Evaluation of .c and .h files as alleged Derivative Works

The same issues with the Mandiant Report Derivative Works assumptions arise when considering the accusations of creating derivative works from JD Edwards (“JDE”) .c and .h files. The .c files in JDE contain C programming statements comparable to the PeopleSoft COBOL, SQR and SQC files. The .h files are header files that contain variables and declarations that can be shared among the .c files.

As with the PeopleSoft COBOL, SQR and SQC files, the Mandiant Report claims that the JDE .c and .h files contain Protected Expression but offers no analysis that indicates what, if anything, is protected.

#### 7.1.4. Confusion around terms

Another problem with the Derivative Works assumptions, which is also present throughout the report, arises regarding the Mandiant Report’s treatment of the terms “data model” and “data schema.” Typically, the term data model refers to the conceptual definition of the elements of a database and the relations between the elements: it captures the concept of the database. Typically, a schema is a formal data definition of a data model expressed in a specific data definition language.

The Mandiant Report improperly conflates the two terms in the Derivative Works assumptions. The Mandiant Report states:

It is also my understanding that the names of tables and fields added to the PeopleSoft data model and PeopleSoft Schema, and the names of online objects and PeopleSoft functions and variables, are largely arbitrary, and the result of a developer's creative expression.<sup>26</sup>

First, the data model is typically conceptual: it does not contain "tables" or "fields" as those are artifacts of a specific data definition implementation, e.g., SQL. The "tables" and "fields" are properly the domain of the schema. Second, although the "names of tables and fields" and "names of online objects and PeopleSoft functions and variables" could possibly reflect creative expression, there is no analysis of any such alleged creative expression or whether it is Protected Expression. The analysis to reach such a conclusion is simply absent from the Mandiant Report. Instead, the Mandiant Report relies on the opinions of Oracle employees who state that, generally, names reflect developer choices and thus somehow constitute Protected Expression.

#### 7.1.4.1 Fact/data changes do not change models or schema

Another problem with the Mandiant Report is the implication in the Derivative Works assumptions that somehow .dat files change the PeopleSoft database schema. In reviewing several .dat files, I concluded that the .dat files changed facts or data values in the database and, at least some, did not change the PeopleSoft database schema. Also, I found no indication in the Mandiant Report that any analysis has been done of any .dat file that would support the assumption that .dat files change the PeopleSoft database schema.

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<sup>26</sup> Mandiant Report, ¶ 113.

#### 7.1.4.2 Database Schema: “Substantial” transformation

Still another problem is that use of the term “substantially transform” with respect to a .dat’s impact on an environment is ambiguous. There is no evidence in the Mandiant Report to support this assumption, including reporting any observations that this actually occurred. Additionally, the Mandiant Report is unclear on what constitutes “substantial.” Use of “substantial” implies that some changes are not “substantial.” Lacking resolution of this ambiguity, it is not possible to do a thorough analysis of the Mandiant Report’s later accusations of development of Derivative Works.

#### 7.2 Distribution: Assumption ignores that the record is of files posted, not files delivered

The basis for the Mandiant Report’s assumption regarding the term “distribution” is also an overstatement. The Mandiant Report assumes that: “Any Fix found on Delivered Updates and Fixes associated with a customer’s three-letter acronym was delivered to that customer.”<sup>27</sup> This is inaccurate. The posting of a Fix in the so called Delivered Updates and Fixes folder only did that: posted the fix.<sup>28</sup> Although many, if not most, of the fixes in the Delivered Updates and Fixes folders were actually delivered, the deposition testimony supports the lack of certainty regarding the distribution of all of the fixes in the Delivered Updates and Fixes folders.<sup>29</sup>

#### 7.3 Assumption regarding Environments

There is a problem with the Mandiant Report assumption regarding the term “Environment.” The Mandiant Report states:

Environments include any installation of Oracle Enterprise Application Software. Where an Environment comprises multiple components, such as a PS\_HOME in

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<sup>27</sup> Mandiant Report, ¶ 36.

<sup>28</sup> See Defendants’ Ninth Amended and Supplemental Response to Plaintiffs’ Fourth Set of Interrogatories to Defendants TomorrowNow, Inc. and Third Set to Defendants SAP AG and SAP America, Inc., No. 95 (indicating that TomorrowNow made the fix or update available for download on the Mail03/Web01 servers).

<sup>29</sup> See e.g., December 5, 2008 Deposition of Matthew Bowden, at 246:7-13 (indicating that the fixes were not always delivered to customers even when posted to the Mail 03 server).

the case of PeopleSoft Enterprise Application Software, the presence of some or all components constitutes an Environment.<sup>30</sup>

The idea that “the presence of some or all components constitutes an Environment” is inappropriate. This definition would define the presence of one file, of any type, that is found in any PS\_HOME in a directory as comprising an Environment. For example, I reviewed an installation of the PS\_HOME portions of a demo version of PeopleSoft HRMS 7.5 and 8.3, and to suggest that the presence of one file comprises an entire PeopleSoft environment is misguided.<sup>31</sup> Additionally, there is no analysis in the Mandiant Report to show that any one such file has Protected Expression.

Moreover, the statement in paragraph 37 of the Mandiant Report is directly inconsistent with the definition given in paragraph 64, which states in part that an environment is the “combination of an installation . . . of Oracle Enterprise Application Software (base application) *and* a corresponding database.”<sup>32</sup>

#### 7.4 Assumption regarding alleged “Improper Activity”

Typically in the area of software support, the experience obtained in troubleshooting in one customer’s environment is used in troubleshooting for another customer’s environment. The Mandiant Report appears to suggest that this is improper activity:

Use of existing Oracle Enterprise Application Software, Oracle Database Software, or Oracle SSMs provided by one customer to create instructions by which another customer can implement its own Fix to Oracle Enterprise Application Software or Oracle Database Software is improper.<sup>33</sup>

This assumption is too broad. It would preclude any third party support or user cooperation in resolving any issues.

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<sup>30</sup> Mandiant Report, ¶ 37.

<sup>31</sup> See ORCL00264019 and ORCL00400498.

<sup>32</sup> Mandiant Report, ¶ 64 (emphasis added).

<sup>33</sup> Mandiant Report, ¶ 38.

## 7.5 Protected Expression Assumption

There is a problem with the Mandiant Report's assumption regarding the term "Protected Expression." The Mandiant Report states:

Oracle Enterprise Application Software, Oracle Database Software, and certain SSMs contain a substantial amount of Protected Expression. In particular, File-based Objects and schema contain a substantial amount of Protected Expression and DAT files may contain a substantial amount of Protected Expression.<sup>34</sup>

### 7.5.1. There is no analysis to support the assumption of "substantial amount"

As discussed above, the identification of the Protectable Expression within a work for which Copyright protection is being sought requires an analysis of the content. I have performed such an analysis on more than one occasion and it is complicated. I am surprised that the Mandiant Report either simply assumes or relies on the analysis of interested third parties for the analysis leading to the assertions regarding the Protected Expression within Oracle's Registered Works. Should other information come to my attention that provides a better explanation of Mr. Mandia's qualifications in this regard or that provides an independent analysis of the allegedly Protected Expression in the Oracle Registered Works, then I will review it at that time.

Moreover, the use of the term "substantial amount of Protected Expression" implies that some of the content of the "Oracle Enterprise Application Software, Oracle Database Software, and certain SSMs" is not Protected Expression. Without an understanding of what, if any, Protected Expression is contained within the objects, etc., the assumption is facially too broad and leads to generalizations that may be baseless. A thorough evaluation of statements asserting improperly derived works cannot be made absent an analysis showing what substantial means at a component level.

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<sup>34</sup> Mandiant Report, ¶ 44.

### 7.5.2. Assumption that .dat files may contain Protected Expression

The Mandiant Report defines a .dat file as:

A data change delivered to a PeopleSoft customer that modifies the data values stored within an Environment typically includes a file containing the new data with a “.dat” extension. These files are referred to as “DAT” files.<sup>35</sup>

For example, from time to time, payroll withholding rates, standard deduction rates, and unemployment wage base rates might change for some jurisdiction that would need to be reflected in a PeopleSoft user’s database used for calculating the appropriate payroll figures.<sup>36</sup> A .dat file could contain data values that would alter the withholding rates in a PeopleSoft database. The .dat file could contain the new rate.<sup>37</sup>

The Mandiant Report Protected Expression assumption states that “DAT files may contain a substantial amount of Protected Expression”<sup>38</sup> – in other words, some may not. For example, in one .dat file TomorrowNow posted for delivery, the file reflects a number of withholding tax rate changes for Ohio based localities, which is a fact, e.g., the withholding tax rate for New Franklin, Ohio residents is now .01.<sup>39</sup> A .dat file containing this factual value may not be protected. Although the PeopleSoft software may perform functions that enables the

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<sup>35</sup> Mandiant Report, ¶ 58.

<sup>36</sup> See, e.g., December 6, 2007 Deposition of Shelley Nelson, at 221:10-222:11 (describing Plaintiffs’ Deposition Exhibit (Pls. Depo. Ex.) 23 and the research TomorrowNow undertook in the critical support model to create its tax and regulatory updates); TN-OR04446719, TN (Hard Drive).75 at View:4. Master Fixes\4 By Fix ID\CSS-TN-1113078352>Select Fix Issues & Select\Fix Notes (showing a TomorrowNow master fix record identifying an issue related to a number of new tax rates and a solution for resolving the issue with customer specific fixes comprised of a .dat file containing the updated withholding rates, standard deduction rates, and unemployment wage base rates). See also, TN-OR00004408-TN-OR00004410.

<sup>37</sup> See TN-OR04497673, TN (Disc).186 at Web01\ClientFix\CSS-TN-0112069292\PAS-TN-0112069292\PAS-TN-0112069292.zip\PAS-TN-0112069292\0112069292\0112069292\_batch\data\ UPD0112069292\_TN.dat & \0112069292\_Install\ PAS-TN-0112069292-Notes.doc (indicating a .dat file containing updates to withholding rates).

<sup>38</sup> Mandiant Report, ¶ 44.

<sup>39</sup> See TN-OR04497673, TN (Disc).186 at Web01\ClientFix\CSS-TN-0112069292\PAS-TN-0112069292\PAS-TN-0112069292.zip\PAS-TN-0112069292\0112069292\0112069292\_batch\data\ UPD0112069292\_TN.dat & \0112069292\_Install\ PAS-TN-0112069292-Notes.doc (indicating a .dat file containing updates to withholding rates).

generation of a .dat file, the .dat file itself would only be a result of any such operations and would likely not be Protected Expression. The Mandiant Report does not take these points into account in any of the analysis.

7.5.3. The Mandiant Report expressly states that .dms files are only “generic scripts with simplistic functions”

Despite the general assumption regarding Protected Expression in the Oracle Application Software, the Mandiant Report expressly excludes .dms files from part of its analysis specifically stating that .dms files are only “generic scripts with simplistic functions.”<sup>40</sup>

7.5.4. Assumption of Protected Expression undercuts numerous claims in the Mandiant Report

While the list below is not exhaustive, the following are several examples of how the lack of support and evidence for this assumption undercuts the claims and conclusions in the Mandiant Report.

7.5.4.1 Claims regarding alleged downloaded materials

The Mandiant Report claims that the alleged materials downloaded by TomorrowNow are covered by Oracle’s Registered Works.<sup>41</sup> However, the Mandiant Report does not provide any analysis or discussion indicating what content in the Registered Works contains Protected Expression. Additionally, there is no analysis indicating that any specific materials downloaded by TomorrowNow contain any Protected Expression in the claimed Registered Works.

7.5.4.2 Claims regarding alleged copies of PeopleSoft backups

The Mandiant Report claims that there are over 3,000 improperly stored copies of PeopleSoft backups on TomorrowNow servers.<sup>42</sup> However, the Mandiant Report does not

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<sup>40</sup> Mandiant Appendices, Appendix K, Section 4, Measure 125, p. 111.

<sup>41</sup> Mandiant Report, ¶¶ 219-226.

<sup>42</sup> Mandiant Report, ¶¶ 255-264.

provide any analysis indicating what content in the purported back-up copies of PeopleSoft environments is Protected Expression. The Mandiant Report appears to either simply assume that protected content is present in the purported back-up copies of PeopleSoft environments or relies on the analysis of interested third parties for the analysis leading to the assertions regarding the Protected Expression.

#### 7.5.4.3 Claims regarding alleged JDE OneWorld copies

The Mandiant Report makes a similar accusation regarding “at least 4 complete or partial copies” of JDE OneWorld XE<sup>43</sup> and again, the analysis for JDE OneWorld suffers from the same flaws. The Mandiant Report appears to either simply assume that protected content is present in the purported copies of JDE OneWorld XE environments or relies on the analysis of interested third parties for the analysis leading to the assertions regarding the Protected Expression. The Mandiant Report does not indicate that the proper analysis was performed to conclude the extent to which the alleged presence of these four JDE OneWorld XE copies contains Protected Expression.

#### 7.5.4.4 Claims regarding alleged JDE World and Siebel copies

The Mandiant Report makes another similarly flawed accusation regarding “nine World A7.3, cumulative update 7 Environments, and three A8.1, cumulative update 6 Environments”<sup>44</sup> and “25 installations of Siebel.”<sup>45</sup> And once again, the analysis for JDE World and Siebel copies suffers from the same flaws. The Mandiant Report appears to either simply assume that protected content is present in the purported copies of JDE World and Siebel environments or relies on the

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<sup>43</sup> Mandiant Report, ¶¶ 265-270.

<sup>44</sup> Mandiant Report, ¶ 273.

<sup>45</sup> Mandiant Report, ¶ 278.

opinions of interested third parties for the analysis leading to the assertions regarding the Protected Expression.

#### 7.5.4.5 Claims regarding alleged Oracle Database copies

The Mandiant Report alleges that 109 copies of Oracle Database Software were found on TomorrowNow servers.<sup>46</sup> The Mandiant Report appears to state that the installations contain Protected Expression.<sup>47</sup> I find no analysis in the Mandiant Report that identifies what Protected Expression is present in the installation for Oracle Database Software. The Mandiant Report appears to either simply assume that protected content is present in the purported copies of Oracle Database Software or relies on the opinions of interested third parties for the analysis leading to the assertions regarding the Protected Expression.

#### 7.5.4.6 Claims regarding TomorrowNow's Fixes

The Mandiant Report claims that many of TomorrowNow's Fixes contain "substantial portions" of Oracle's Registered Works.<sup>48</sup> However, the Mandiant Report does not provide any analysis or discussion indicating what content in the Registered Works contains Protected Expression. Additionally, there is no analysis indicating that any specific materials within the TomorrowNow Fixes contain any Protected Expression in the claimed Registered Works.

### 7.6 Contamination assumptions

The Mandiant Report states that the Critical Support Model and Retrofit Support Model, by definition, resulted in contaminated fixes by "improper Environment use."<sup>49</sup> This is based on the assumption that use of a first customer environment or a "generic" environment for the development of fixes necessarily used Protected Expression from the first environment.

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<sup>46</sup> Mandiant Report, ¶¶ 282-291.

<sup>47</sup> Mandiant Report, ¶ 291.

<sup>48</sup> Mandiant Report, ¶¶ 348-369.

<sup>49</sup> Mandiant Report, ¶ 296.

However, the analysis to determine what is Protected Expression in any environment is not present in the Mandiant Report. The assertions of the existence of Protected Expression are based solely on the opinions of Oracle employees. I am unaware of any independent, component-level analysis that identifies any specific Protected Expression in the Oracle objects and other entities.

#### 7.7 Terms of Use assumption

Another problem that undermines the findings and opinions in the Mandiant Report relates to the assertion that certain TomorrowNow activities were performed that violated the Terms of Use for Oracle's customer support websites such as Customer Connection and Support Web.<sup>50</sup> However, the Mandiant Report offers only broad general assertions about the Oracle website Terms of Use and does not indicate that any such Terms of Use were reviewed in reaching any conclusions. Without identification of which provision of the Terms of Use (or even which Terms of Use provisions were applicable during which time periods) is allegedly violated, a full analysis of the accusation of infringing conduct is not possible.

Additionally, as noted above, these broad accusations of improper downloading are contradicted within the Mandiant Report when it states that an agent of an Oracle customer, e.g., TomorrowNow, is allowed to download material on behalf of that customer:

Certain of Oracle's support websites, including Customer Connection, and certain Oracle tools on those websites, were password-protected. The password protection and Terms of Use restricted access to a customer (or agent) with an active maintenance contract with Oracle.<sup>51</sup>

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<sup>50</sup> Mandiant Report, ¶¶ 46-47.

<sup>51</sup> Mandiant Report, ¶ 173.

## 7.8 Definitions in Mandiant Report

The definitions listed in the Mandiant Report do not contain any information regarding where, or who, they came from. As such, it is difficult to fully analyze the implications of each of these definitions without the context of their source. Normally, I expect to find references to dictionaries or other authoritative sources for such information.

## **8. Discussion, and disproportionate treatment, of different product lines serviced by TomorrowNow**

### 8.1 Discussion does not reveal familiarity with this software in particular and Copyright analysis generally

The Mandiant Report devotes numerous pages to generalizing and characterizing TomorrowNow's services and business model. This discussion shows that the Mandiant Report opinions are dependent on Oracle employees, that Mandia is not familiar with the software at issue, and that the Mandiant Report is almost exclusively focused on conduct related to TomorrowNow's PeopleSoft support services.

#### 8.1.1. Mandiant relies on undisclosed expert opinions from Oracle employees

As noted above, the Mandiant Report typically relies on the opinions of Oracle employees as the basis for the statements that a given Registered Work contains Protected Expression. This is again highlighted here. For example, the Mandiant Report overview of PeopleSoft products asserts that because certain Oracle employees stated that SQR, SQC and COBOL files contain creative ( i.e., allegedly protected) expression, it must be so:

In conversations with Oracle employees including Oracle's Chief Corporate Architect, Edward Screven, and Norm Ackermann, I have been informed that COBOL, SQR, and SQC files are the result of creative expression and embody a developer's particular choices.<sup>52</sup>

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<sup>52</sup> Mandiant Report, ¶ 112.

Again, without the basis for Mr. Screven's and Mr. Ackerman's statements, I cannot fully evaluate the accusation of Copyright infringement.

As another example of the reliance on third parties, the Mandiant Report relies on Oracle employees for the opinion on improper use of Protected Expression:

In conversations with Oracle employees including Oracle's Chief Architect, Edward Screven, and Oracle employees Jason Rice and Buffy Ransom, I have been informed that ".c" and ".h" files are the result of creative expression and embody a developer's particular choices. It is my understanding that there would be more than one way to solve any particular problem in these types of files. It is also my understanding that these files contain comments and other nonfunctional material, and that the names of these files and the variables and functions within these files are largely arbitrary, and the result of a developer's creative expression.

In conversations with Oracle's Chief Architect, Edward Screven, and Oracle employee Greg Story, I have been informed that the source code members comprising JD Edwards World are the result of creative expression and embody a developer's particular choices.<sup>53</sup>

Again, without the basis for the Oracle employee's opinions, I cannot fully evaluate the accusations of Copyright infringement in the Mandiant Report.

8.1.2. The Mandiant Report does not use terms consistently, which suggests a possible lack of background and experience with these types of software programs

Also contained in the Mandiant Report are several statements that would not be expected from a person with a background and experience related to the kinds of products and services at issue in this matter. For example, the following statement appears to indicate a lack of understanding about the relationship between application software and the database management system upon which it depends:

Oracle has designed Oracle Database Software to work with Oracle's Enterprise Application Software. In other words, a product such as PeopleSoft HRMS is pre-loaded with the structure of the Oracle Database software so that customers can both store and use their data more efficiently in one integrated technology stack, making the customer's information management less complicated and less expensive to manage.

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<sup>53</sup> Mandiant Report, ¶¶ 120-121.

This is misguided. If anything, Oracle has designed *Oracle's Enterprise Application Software* to work with *Oracle Database Software*. In other words, Oracle Database Software is designed to work with the broadest possible base of applications — almost all of which are not Oracle's Enterprise Application Software. An optimization of the Oracle's Enterprise Application Software to work efficiently with Oracle Database Software makes technical and practical sense. The Mandiant Report's opposite statement does not.

As another example, the Mandiant Report seems to imply that a database can be vendor independent: "The database can be vendor-agnostic, such as Oracle, SQL Server, Sybase, DB2, . . ." <sup>54</sup> This does not make sense. A database instance is an instance of a particular data model expressed in a vendor-specific language. The Oracle, SQL Server, Sybase and DB2 dialects of SQL all contain vendor-specific optimizations. It may be true that Oracle's Enterprise Application Software is a database system that is vendor-agnostic, but a database instance is necessarily vendor-specific.

Another example is illustrated in the Mandiant Report when it confuses facts with potentially Protected Expression:

Based on the above, COBOL, SQR, and SQC files, online objects, and changes and additions to the PeopleSoft data model and PeopleSoft Schema would qualify for protection under copyright law as a creative work. <sup>55</sup>

I understand that a concept is not protected by the Copyright Act. The PeopleSoft data model is a concept; that is, the data elements and their relationship in the PeopleSoft data model are what they are. It is conceptual in nature. A document such as an entity-relationship diagram that presents the conceptual data model in a human readable form may be an expression subject to protection, but the model is not.

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<sup>54</sup> Mandiant Report, ¶ 111.

<sup>55</sup> Mandiant Report, ¶ 116.

### 8.1.3. Mandia's apparent lack of experience with Copyright analysis

For the reasons noted above, I closely reviewed the *curriculum vitae* of Kevin Mandia as well as his characterization of his qualifications regarding the opinions in the Mandiant Report. I was unable to identify any experience with Copyright analysis or even the kind of experience that would suggest that Mr. Mandia is qualified to opine on matters related to Copyright analysis. As Oracle's attorneys make clear in the Complaint<sup>56</sup> filed in this matter, the basis for this lawsuit is an accusation of Copyright infringement. However, the opinions in the Mandiant Report related to the presence of Protected Expression in Registered Works either assume Protected Expression or rely on the statements and opinions of others, primarily Oracle employees.

- There is insufficient analysis in the Mandiant Report on which to make a thorough technical evaluation of Oracle's claims regarding Copyright infringement

In the end, Kevin Mandia's *curriculum vitae*, his previous experience and background, and the Mandiant Report all indicate that the analysis that was performed was almost exclusively oriented to data gathering and analysis related to TomorrowNow's pre-litigation business practices. There is simply insufficient analysis presented in the Mandiant Report on which to make a thorough technical evaluation of Oracle's claims regarding Copyright infringement.

### 8.2 The analysis in the Mandiant Report is almost exclusively relating to PeopleSoft HRMS and generally ignores other software lines and service models

Almost all of the analysis in the Mandiant Report relates to the PeopleSoft Human Resource Management System ("HRMS") product line and generally ignores TomorrowNow's other supported product lines and service models. There is very limited analysis in the Mandiant Report regarding the other business activities. As such, the overarching accusation regarding all TomorrowNow services for all products as reflected in the Summary of Conclusions and

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<sup>56</sup> FOURTH AMENDED COMPLAINT FOR DAMAGES AND INJUNCTIVE RELIEF FOR: (1) COPYRIGHT INFRINGEMENT; [...], dated August 18, 2009.

Conclusion 4 is not supported. This is because throughout the Mandiant Report the explanations regarding TomorrowNow's business practices ignores many aspects, and thus, the accusations of Copyright infringement, whether they have merit or not, are overstated.

#### 8.2.1. Mischaracterization of TomorrowNow's PeopleSoft HRMS Business Models

The Mandiant Report mischaracterizes TomorrowNow's two historical PeopleSoft related business models. The Mandiant Report states:

In general, although the names are different, the two models do not differ in their reliance on many Cross-used copies of Environments to support multiple customers.<sup>57</sup>

This statement ignores important facts. For example, TomorrowNow's Retrofit customers were users of Oracle software versions for which Oracle had withdrawn support.<sup>58</sup> Each Retrofit customer had a maintenance agreement with Oracle for the entire time TomorrowNow provided retrofit support to that customer.<sup>59</sup> This maintenance agreement meant that each of these customers regularly received and had Oracle-approved access to Oracle Updates while TomorrowNow was servicing them. As discussed by TomorrowNow's witnesses, the Updates were used by TomorrowNow, acting as the customer's third party agents, to understand what changes had been made by Oracle so that the Retrofit customers that had been abandoned by Oracle could keep their systems operating.<sup>60</sup> This is in contrast to the Critical Support customers that, for the most part, did not have maintenance agreements with Oracle

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<sup>57</sup> Mandiant Report, ¶ 125.

<sup>58</sup> *See, e.g.*, February 26, 2009 Deposition of Andrew Nelson, at 63:17-64:6 (discussing the support of software that was being retired); April 18, 2008 Deposition of Shelley Nelson, at 278:8-19 (generally discussing extended support as allowing a customer to continue to receive support after the release was retired). *See also* TN-OR00646511-TN-OR00646513 (Tax & Regulatory Updates: Retrofit development for PeopleSoft 7.x Releases).

<sup>59</sup> *See* February 26, 2009 Deposition of Andrew Nelson, at 84:19-86:25 (noting that Retrofit customers were still on maintenance); April 1, 2008 Deposition of Catherine Hyde at 35:1-4 ("And by extended support, I mean they pay maintenance.").

<sup>60</sup> *See, e.g.*, February 26, 2009 Deposition of Andrew Nelson, at 63:17-64:6 and 84:19-86:25; April 1, 2008 Deposition of Catherine Hyde, at 50:16-53:14 (general description of the retrofit process).

during most of the time TomorrowNow was supporting them.<sup>61</sup> TomorrowNow supplied Critical Support customers with updates without regard to Oracle's Updates.<sup>62</sup> The Mandiant Report acknowledges this: "The CSM involved a similar process as the RSM, but did not typically involve using an Oracle Update as SAP TN's source."<sup>63</sup> While the Mandiant Report also acknowledges that most of TomorrowNow's customers were Critical Support customers,<sup>64</sup> this very different treatment of the two customer classes is otherwise not accounted for in the Mandiant Report.

#### 8.2.2. Ignores Call Support

The Mandiant Report ignores a large portion of TomorrowNow's other business. For example, much of TomorrowNow's business activity was providing call support for PeopleSoft, JDE and Siebel customers. As TomorrowNow's witnesses testified in deposition, the call support provided to customers was one of three "primary deliverables" and was different than, and in addition to, TomorrowNow's Retrofit or Critical Support service offerings.<sup>65</sup>

The lack of discussion of the other business services offered by TomorrowNow means that the Mandiant Report highlights only a portion of TomorrowNow's support business without acknowledging the other support options provided by TomorrowNow. Therefore, this analysis yields a biased view of TomorrowNow's activities.

Even assuming, without agreeing, that Oracle's Copyright infringement accusations have merit, much of TomorrowNow's business activity is not implicated by the Mandiant Report. The

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<sup>61</sup> See, e.g., Pls. Depo. Ex. 23 (generally describing the Critical Support model). See also December 6, 2007 Deposition of Shelley Nelson, at 221:10-222:11 (describing the Critical Support model generally).

<sup>62</sup> *Id.*

<sup>63</sup> Mandiant Report, ¶140.

<sup>64</sup> *Id.*

<sup>65</sup> See April 21, 2009 Deposition of Bob Geib, at 256:16-257:18 (describing the three primary types of services TomorrowNow performed for customers as phone support, customizations and updates to the software, and regulatory changes).

facts regarding customer support provided to PeopleSoft customers that did not subscribe to the TomorrowNow HRMS support services or the JDE and Siebel customers that were supported remotely are not taken into account. The over representation of the TomorrowNow support for PeopleSoft HRMS in the Mandiant Report is misleading in that it ignores the support provided to customers that did not rely on the allegedly infringing TomorrowNow business activities.

8.2.3. TomorrowNow serviced numerous different product lines for PeopleSoft. The Mandiant Report mainly focuses on HRMS

The majority of the Mandiant Report is devoted to discussion of TomorrowNow’s business practices with respect to Retrofit and Critical Support services for PeopleSoft HRMS customers. However, TomorrowNow supported several different PeopleSoft product lines. The following table identifies each supported PeopleSoft product line and version supported by TomorrowNow over time and provides a brief description of each product.<sup>66</sup>

<i>Product Line Name</i>	<i>Version</i>	<i>Brief Description</i>
PeopleSoft HRMS (Human Resources)	7	Human resources software comprising over 40 separate applications for such tasks as payroll, benefits administration, time and labor, etc.
	7.02	
	7.5	
	7.51	
	7.6	
	8SP1	
	8.3	
	8.3SP1	
	8.4	
	8.8	
	8.8SP1	
	8.9	
	8.9SP1	

<sup>66</sup> The information in the chart is derived from TN-OR06515453, which lists all PeopleSoft customers, applications, and releases to which TomorrowNow provided support.

<i>Product Line Name</i>	<i>Version</i>	<i>Brief Description</i>
PeopleSoft FDM (Financials)	7.0 7.02 7.5 7.52 7.53 8SP1 8SP2 8SP3 8.4 8.4SP1 8.4SP2 8.8 8.8SP1 8.9	Financials software comprising over 35 separate applications for such tasks as procurement, budgeting, purchasing, inventory, receivables, etc.
PeopleSoft CRM (Customer Relationship Management)	8 8.4 8.4SP1 8.8 8.9	Customer relations management software comprising over 10 separate applications for such tasks as sales, support, marketing, order capture, help desk, etc.
PeopleSoft EPM (Enterprise Performance Management)	8.3SP1 8.3SP4 8.4SP1 8.8 8.8SP1 8.9	Enterprise performance management software comprising over 10 separate applications for such tasks as analytic forecasting, budget planning, business planning, etc.
PeopleSoft Student Administration	8SP1	Student administration software comprising over 5 separate applications for such tasks as student financials, student records, recruiting, admissions, etc.

8.2.3.1 Of 357 total TomorrowNow customers, 208 were being supported by TomorrowNow for their PeopleSoft software

By the time of the wind down, October 31, 2008, of TomorrowNow, over time there had been 357 total TomorrowNow customers.<sup>67</sup> Of those total customers over time, 208 used TomorrowNow services to support PeopleSoft products.<sup>68</sup>

8.2.3.2 Of TomorrowNow's 208 PeopleSoft customers over time, there were only 162 PeopleSoft HRMS customers<sup>69</sup>

Of the 208 total customers that subscribed over time to the TomorrowNow PeopleSoft support services, 162 or 78% of those customers subscribed at points during the time periods relevant to this case to the TomorrowNow PeopleSoft HRMS support services.<sup>70</sup>

8.2.4. The Mandiant Report ignores that almost all JDE customers were serviced remotely

Although much attention is paid to PeopleSoft HRMS in the Mandiant Report, TomorrowNow supported a large number of JDE OneWorld and World customers.<sup>71</sup> And the majority of those JDE customers were serviced remotely.<sup>72</sup> Also, TomorrowNow's post-litigation support for PeopleSoft customers was performed without the use of local environments after April 30, 2008 as well.<sup>73</sup>

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<sup>67</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the "Non-Accused Conduct" Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>68</sup> *Id.* Some of those customers were only receiving consulting services (i.e. upgrades and implementations). See TN-OR04446719, TN (Hard Drive).<sup>75</sup> at PeopleSoft View: 1. Support\2. All\Services by Engagement (listing customers which subscribed to consulting and upgrade services).

<sup>69</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the "Non-Accused Conduct" Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>70</sup> *Id.*

<sup>71</sup> TomorrowNow supported 143 JDE customers over time. See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001.

<sup>72</sup> See October 30, 2007 Deposition of Mark Kreutz, at 94:12-18 and February 19, 2008 Deposition of Mark Kreutz, at 40:11-14 and 91:22-92:10.

<sup>73</sup> Pls. Depo. Ex. 851. See also February 12, 2009 Deposition of Martin Breuer, at 256:1-24.

8.2.4.1 Brief description of releases and product lines within JDE that TomorrowNow supporting

The following table identifies each supported JDE product line and version supported by TomorrowNow over time and provides a brief description of each product:<sup>74</sup>

<b>Product Line Name</b>	<b>Version</b>	<b>Brief Description</b>
JDE OneWorld Distribution	8.0 8.9 8.10 8.11 8.12 B7.3.3.2 XE	Distribution based software consisting of over 15 separate applications for such tasks as pricing, sales order management, procurement, inventory management, transportation management, etc.
JDE OneWorld Financials	8.0 8.9 8.10 8.11 8.12 B7.3.3.2 XE	Financials based software consisting of over 20 separate applications for such tasks as accounts payable, accounts receivable, financial reporting, etc.
JDE OneWorld Manufacturing	8.0 8.9 8.10 8.11 8.12 B7.3.3.2 XE	Manufacturing based software consisting of over 15 separate applications for such tasks as equipment/plant management, work order processing, requirements planning, product costing, forecasting, etc.
JDE OneWorld HRMS	8.0	Human relations based software consisting of over

<sup>74</sup> The information in the chart is derived from TN-OR06515454-55, which provides details on all JDE OneWorld and World customers and lists the product lines and versions for which TomorrowNow provided support. In addition to the product lines listed above, Coors Brewers Limited contracted with TomorrowNow for Numetrix support. The SAS records indicate that, to the extent any support was provided for this product line, the support was to be provided by a third party, MetaChain Europe, on TomorrowNow's behalf. See TN-OR04446719, TN (Hard Drive).<sup>75</sup> at OneWorld View 1.Support\1. All\By Customer>Select Coors Brewers Limited>Select Numetrix/APS>Select Engagement.

<b>Product Line Name</b>	<b>Version</b>	<b>Brief Description</b>
	8.9 8.10 XE	20 separate applications for such tasks as benefits administration, payroll, wages and labor, human resources, time accounting, etc.
JDE World Distribution	A7.3 A8.1 A9.1	Distribution based software consisting of over 10 specific applications for such tasks as pricing, warehouse management, procurement, etc.
JDE World Financials	A7.3 A8.1 A9.1	Financials based software consisting of over 20 separate applications for such tasks as accounts payable, accounts receivable, cash basis accounting, etc.
JDE World HRMS	A7.3 A8.1 A9.1	Human relations based software consisting of over 15 separate applications for such tasks as benefits administration, time accounting, payroll, health and safety, human resources, time accounting, etc.
JDE World Manufacturing	A7.3 A8.1 A9.1	Manufacturing based software consisting of over 13 separate applications for such tasks as capacity planning, forecasting, manufacturing accounting, product costing, etc.

8.2.4.2 TomorrowNow serviced approximately 8 different product lines and 10 releases for JDE over time

To summarize, TomorrowNow serviced 8 different product lines and 10 releases for customers subscribing to the TomorrowNow JDE support services over time.<sup>75</sup>

8.2.4.2.1 For JDE World, TomorrowNow serviced 3 releases, 4 product lines and 92 customers

Specifically with respect to the TomorrowNow JDE World support services, TomorrowNow supported 3 releases and 4 product lines for each release for 92 customers subscribing to the TomorrowNow support services over time.<sup>76</sup> Not all customers were on every release or product line supported by TomorrowNow.

<sup>75</sup> See *id.* (providing details on all JDE OneWorld and World customers and listing the product lines and versions for which TomorrowNow provided support).

<sup>76</sup> See Appendix 4, which contains the “Non-Accused Conduct” spreadsheet and is bates labeled SAP-GRA-000001; see also TN-OR06515455.

#### 8.2.4.2.1.1 90 JDE World customers serviced remotely

Of the 92 JDE World customers TomorrowNow serviced over time, 90 were serviced remotely.<sup>77</sup>

#### 8.2.4.2.2 For JDE OneWorld, TomorrowNow serviced 7 releases, 4 product lines and 73 customers

Specifically with respect to the TomorrowNow JDE OneWorld support services, TomorrowNow supported 7 releases and 4 product line for each release for 73 customers subscribing to the TomorrowNow support services over time.<sup>78</sup> Not all customers were on every release or product line supported by TomorrowNow.

#### 8.2.4.2.2.1 73 JDE OneWorld customers serviced remotely

Of the 73 JDE OneWorld customers over time, 72 were serviced remotely.<sup>79</sup>

Thus, only three TomorrowNow customers subscribing to the JDE World and OneWorld support service had local environments on TomorrowNow's network.<sup>80</sup>

#### 8.2.5. The Mandiant Report does not even discuss the Siebel services model

The Mandiant Report does not discuss the support services provided by TomorrowNow for Siebel; however, 16 Siebel users subscribed to TomorrowNow support services over time.<sup>81</sup>

There was no support for human resource management and no support for payroll provided to

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<sup>77</sup> See October 30, 2007 Deposition of Mark Kreutz, at 94:12-18 (testifying that TomorrowNow only had local environments for Koontz-Wagner (World), Bonne Bell (World), and Praxair (OneWorld)). See also February 19, 2008 Deposition of Mark Kreutz, at 40:11-14 and 91:22-92:10.

<sup>78</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001; see also TN-OR06515454.

<sup>79</sup> See October 30, 2007 Deposition of Mark Kreutz, at 94:12-18 (testifying that TomorrowNow only had local environments for Koontz-Wagner (World), Bonne Bell (World), and Praxair (OneWorld)). See also February 19, 2008 Deposition of Mark Kreutz, at 40:11-14 and 91:22-92:10.

<sup>80</sup> See October 30, 2007 Deposition of Mark Kreutz, at 94:12-18 (testifying that TomorrowNow only had local environments for Koontz-Wagner (World), Bonne Bell (World), and Praxair (OneWorld)).

<sup>81</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001.

TomorrowNow’s customers that subscribed to the Siebel support services.<sup>82</sup> The Siebel products supported by TomorrowNow consisted of customer relationship management and analytics products only.<sup>83</sup> This is in contrast to the legislative and regulatory support requirements provided by TomorrowNow to PeopleSoft HRMS Payroll customers and to a lesser extent to the JDE customers.<sup>84</sup>

8.2.5.1 TomorrowNow serviced 2 Siebel product lines at 6 releases

The following table identifies each Siebel product line and version supported by TomorrowNow over time and provides a brief description of each product<sup>85</sup>:

<i>Product Line Name</i>	<i>Version</i>	<i>Brief Description</i>
Analytics	7.x 7.7x 7.8x	Business intelligence software consisting of at least five separate analytic applications,
CRM	5.x 6.x 7.x 7.5x 7.7x 7.8x	Customer relationship management software consisting of at least 20 separate applications for such tasks as marketing, performance, communications, etc.

8.2.5.2 Several customers serviced remotely

Of the 16 TomorrowNow customers subscribing to the Siebel support services over time, ten of them were supported with the use of environments on the customer network.<sup>86</sup>

<sup>82</sup> See TN-OR07717977 (providing a list of each Siebel application and application area TomorrowNow serviced and showing none are for human resources management or payroll).

<sup>83</sup> See TN-OR07717977 (providing a list of each Siebel application and application area TomorrowNow serviced and showing TomorrowNow only serviced Siebel Analytics and Siebel CRM).

<sup>84</sup> See TN-OR06515453 (listing the services, including legislative and regulatory support, to TomorrowNow’s PeopleSoft customers); TN-OR06515454 (listing the services, including legislative and regulatory support to TomorrowNow’s JDE OneWorld customers); TN-OR06515455 (listing the services, including legislative and regulatory support, to TomorrowNow’s JDE World customers).

<sup>85</sup> The information in this table is derived from TN-OR07717977, which lists each of the Siebel product lines and versions TomorrowNow provided support to according to the SAS database.

### 8.2.6. Limited discussion of Copyright Registrations

As discussed below in Sections 9, 10, and 11 of my Report, the Mandiant Report only references 65 Copyright Registrations of the 120 Copyright Registrations put at issue by Oracle in this case. The Mandiant Report does not discuss any other registrations.<sup>87</sup>

### 8.3 There is no evaluation of whether the customers received any software they had not paid Oracle for regardless of the source of the software

The Mandiant Report identifies instances of TomorrowNow's alleged acquisition of Oracle software on behalf of its customers. The Mandiant Report, relying on the opinions of Oracle employees, states that at least some of the allegedly acquired software allegedly contained material protected by Copyrights asserted in the matter. What the Mandiant Report fails to disclose is whether TomorrowNow's customers were entitled to the allegedly Copyright protected software that TomorrowNow allegedly acquired by on their behalf. In other words, the Mandiant Report does not address whether TomorrowNow's customers were entitled to the software regardless of the source of the software. Determining whether the TomorrowNow customer was entitled to the software requires a customer by customer, license by license analysis. This analysis is not contained in the Mandiant Report and I am unaware of any document produced in this matter that presents this analysis.

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<sup>86</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the "Non-Accused Conduct" Methodology Document and is bates labeled SAP-GRA-000002-13. See also September 17, 2009 Deposition of Michael Garafola, at 173:16-175:14 and Pls. Depo Exs. 1623 and 1628 (indicating that only 6 customers had local environments on TomorrowNow's network and that the remaining customers were serviced remotely with the use of environments on the customer network). Further, this analysis does not count TomorrowNow customer EDF Energy, which as noted on Pls. Depo. Ex. 1623, was a consulting only customer. See also TN-OR04446719, TN (Hard Drive).75 at Siebel View 1.Support\1. All\By Customer>Select EDF Energy>Select Service.

<sup>87</sup> A summary of the registrations mentioned, and the places where they can be found in the Mandiant Report, is contained in Appendix 6, which is bates labeled SAP-GRA-000014.

8.4 For the Retrofit model, the Mandiant Report ignores that all customers continued to pay Oracle maintenance for the software at issue

TomorrowNow's Retrofit customers were users of Oracle software versions for which Oracle had withdrawn support.<sup>88</sup> Each Retrofit customer had a maintenance agreement with Oracle for the entire time TomorrowNow provided retrofit support to that customer.<sup>89</sup> This maintenance agreement meant that each of these customers regularly received and had Oracle-approved access to Oracle Updates while TomorrowNow was servicing them. As discussed by TomorrowNow's witnesses, the Updates were used by TomorrowNow, acting as the customer's third party agents, to understand what changes had been made by Oracle so that the Retrofit customers that had been abandoned by Oracle could keep their systems operating.<sup>90</sup>

8.5 Customer Breakdown by Service Line

Appendix 4 to this Report documents the SAS records for which TomorrowNow customers subscribed to which TomorrowNow service line accused in this matter as of the time of the TomorrowNow wind down.<sup>91</sup>

8.5.1. Of the total 357 TomorrowNow customers over time, there are 179 JDE and Siebel customers combined<sup>92</sup>

The following table is a summary of Appendix 4 and shows how many customers subscribed to the PeopleSoft, JDE and Siebel services provided by TomorrowNow<sup>93</sup>:

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<sup>88</sup> See, e.g., February 26, 2009 Deposition of Andrew Nelson, at 63:17-64:6 (discussing the support of software that was being retired); April 18, 2008 Deposition of Shelley Nelson, at 278:8-19 (generally discussing extended support as allowing a customer to continue to receive support after the release was retired).

<sup>89</sup> See February 26, 2009 Deposition of Andrew Nelson, at 84:19-86:25 (noting that Retrofit customers were still on maintenance); April 1, 2008 Deposition of Catherine Hyde at 35:1-4 ("And by extended support, I mean they pay maintenance.").

<sup>90</sup> See, e.g., February 26, 2009 Deposition of Andrew Nelson, at 63:17-64:6 and 84:19-86:25; April 1, 2008 Deposition of Catherine Hyde, at 50:16-53:14 (general description of the retrofit process).

<sup>91</sup> See Appendix 4, which contains the "Non-Accused Conduct" spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the "Non-Accused Conduct" Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>92</sup> *Id.*

<i>Product Family</i>	<i>Customer Count</i>
PeopleSoft	208
JDE	143
Siebel	16
Total	367 <sup>94</sup>

## **9. Conclusion 1**

### 9.1 Brief synopsis

Section VI of the Mandiant Report titled CONCLUSION 1: SAP TN ENGAGED IN MASS DOWNLOADING FROM AND IMPROPER ACCESS TO ORACLE SYSTEMS contains flawed analysis and misguided conclusions and opinions. The allegations provide no analysis of how a user name or customer ID or password are used by the Oracle website to determine which user “credentials” went with which customer. The Mandiant Report misstates the purpose of Titan and the analysis of an alleged outage allegedly caused by Titan ignores Oracle’s own testimony that there was no such outage observed or reported. The Mandiant Reports’ conclusions related to “master pools” ignore facts. The Copyright registration analysis shows most of the alleged downloads were for objects that were not established as being Copyright registered. And finally, the Mandiant Report does not demonstrate how Oracle was harmed regarding alleged downloading of Oracle material to which TomorrowNow customers were allegedly not entitled.

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<sup>93</sup> *Id.*

<sup>94</sup> Note that some customers had service contracts with TomorrowNow for more than one product line.

## 9.2 Oracle's admission that third party agents may download

The Mandiant Report's broad accusations of improper downloading (see below) are contradicted within the Mandiant Report when it states that an agent of an Oracle customer, e.g., TomorrowNow, is allowed to download material on behalf of that customer:

Certain of Oracle's support websites, including Customer Connection, and certain Oracle tools on those websites, were password-protected. The password protection and Terms of Use restricted access to a customer (or agent) with an active maintenance contract with Oracle.<sup>95</sup>

The Mandiant Report agrees that downloading from Oracle websites such as Customer Connection is permissible as long as the agent, such as TomorrowNow, is acting on behalf of an Oracle customer. The Mandiant Report offers no analysis that identifies which downloads were proper and which downloads were allegedly improper. Instead, for most of the file counting and other measures reported in the Mandiant Report, the assumption is that all downloading was improper.

## 9.3 Mandiant Report's claim regarding "improper" access

The Mandiant Report states that TomorrowNow accessed "Oracle's password-protected support websites using automated downloading tools, inappropriate customer credentials and pre-textual customer information to take Oracle SSMS and download them . . . ."<sup>96</sup> This conclusion is asserted without any discussion or analysis of applicable license agreements or any Terms of Use for a specific customer or a specific instance.

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<sup>95</sup> Mandiant Report, ¶ 173.

<sup>96</sup> Mandiant Report, ¶ 172.

#### 9.4 Access allegations ignore when and how user names and IDs are given

The Mandiant Report alleges that TomorrowNow improperly used TomorrowNow's customer's login and password to access the Oracle websites which somehow made it impossible to determine which "credentials" went with which customers.

##### 9.4.1. The Mandiant Report never analyzes how customer "credentials" are issued and potentially modified

The Mandiant Report ignores the process generally used for a user to establish "credentials." Typically, a user is asked to register with a website in order to establish a user name and password that will be used in subsequent visits to gain access to the website and the materials therein. It is at the point that pertinent user information is supplied to the website. There is nothing in the Mandiant Report that suggests any analysis of how "credentials" were issued or potentially modified by Oracle's customers who used Customer Connection and Change Assistant during the times relevant to Oracle's claims.

#### 9.5 Analysis of Titan ignores Oracle's own testimony regarding the claimed unavailability of Customer Connection and the purpose of Titan

The Mandiant Report mischaracterizes the purpose and scope of the proprietary program known as Titan used by TomorrowNow to conduct certain portions of the download process for certain customers:

Over time, SAP TN developed a tool known as Titan. SAP TN programmed Titan to allow automated, mass downloading from Oracle without regard to any license restrictions a customer may have.<sup>97</sup>

TomorrowNow's internal manuals and deposition testimony from TomorrowNow witnesses confirm that Titan was neither designed nor used in production to indiscriminately

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<sup>97</sup> Mandiant Report, ¶ 174. The Mandiant Report in paragraph 5 also asserts "[i]n other words, SAP TN used virtually any working credentials to download files indiscriminately."

download Oracle material without regard for customer licenses.<sup>98</sup> TomorrowNow did not have access to its customers' respective license agreements with Oracle. TomorrowNow relied on the representations of its customers to determine which customers were entitled to which Oracle materials retrieved from Oracle websites using Titan.<sup>99</sup>

#### 9.5.1. Purpose and explanation of Titan

Titan was designed to automate the download process for TomorrowNow's use on behalf of its customers.<sup>100</sup> The tool was designed to access files that were available through Customer Connection. There was nothing in the Titan system that was designed to do anything other than what a customer could legitimately do for themselves manually — Titan just did it much faster.<sup>101</sup>

#### 9.5.2. Omitted, but relevant, context for the cited situation

The Mandiant Report presents log file analysis that shows that Titan occasionally experienced errors when trying to connect to Oracle's Customer Connection website.<sup>102</sup> This analysis revealed that Titan occasionally failed to authenticate to the Customer Connection

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<sup>98</sup> See TN-OR00083849-60 (TomorrowNow download manual requiring engineers to "update [the customer log in] window with the clients log in information and company name" and noting that "Titan uses this contact information to connect to PeopleSoft"); June 3, 2009 Deposition of Josh Testone, at 44:17-24 (explaining that TomorrowNow had rules in place related to downloading that related to maintenance end dates, using a specific customer's credentials to access Oracle's website for downloading, and storing downloads in customer specific folders) and 84:15-25 (explaining that TomorrowNow stored materials downloaded by Titan directly to a file share that kept the download's company name, product, etc. structure); September 22, 2009 Deposition of Peggy Lanford, at 35:21-36:2 (stating that she was not aware of TomorrowNow downloading materials for a customer after their maintenance end date or using the wrong customer's credentials) and 37:17-39:3 (stating that in performing downloads TomorrowNow would use information regarding what releases a customer needed, the customers user name and password and the customer's maintenance end date). See also generally February 19, 2008 Deposition of Mark Kreutz, at 179:13-16 (explaining that it was TomorrowNow's policy at the time he joined the company in late 2005 to use a specific customer's credentials to download items for that customer and to download all items before the maintenance end date); June 19, 2009 Deposition of Peter Surette, at 21:7-19; and April 1, 2008 Deposition of Katherine Williams at 102:9-22.

<sup>99</sup> See generally October 30, 2007 Deposition of Mark Kreutz, at 175:10-176:12 and January 9, 2009 Deposition of Bob Geib, at 50:2-51:5.

<sup>100</sup> See June 3, 2009 Deposition of Josh Testone, at 75:19-76:7 and 83:20-84:25.

<sup>101</sup> See December 2, 2009 Deposition of John Ritchie, at 175:1-5.

<sup>102</sup> Mandiant Report, ¶¶180-189.

website for a period of time. Generally, the recovery approach taken by TomorrowNow operations staff was to restart Titan.<sup>103</sup> Based on this log data analysis, undisclosed source code analysis and testimony from TomorrowNow witnesses, the Mandiant Report suggests that Titan probably restricted other customers from access to Oracle's Customer Connection website.<sup>104</sup>

The Mandiant report concluded:

In summary, the roadmap provided by Ritchie, the Titan source code and the Titan log files together suggest that customers more than likely were not able to access Oracle websites as easily, or at all, while Titan was running.<sup>105</sup>

However, the Mandiant Report provides no explanation of how this suggestion could have been derived from the material analyzed and the Mandiant Report also leaves out critical facts that contradict this allegation.

9.5.3. The Mandiant Report ignores Oracle deposition testimony on this topic and does not contain any analysis regarding the Oracle website capabilities

It should be noted that nothing is presented in the Mandiant Report to suggest that the Oracle Customer Connection ever experienced an outage related to Titan. However that fact is confirmed by Oracle's own corporate representative witnesses.<sup>106</sup> Also, there is nothing in the Mandiant Report's analysis of the Titan logs that suggest that the problem affected the Customer Connection website. My analysis of the cited log files indicates that the more likely scenario is

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<sup>103</sup> See December 2, 2009 Deposition of John Ritchie, at 52:11-15 (describing the process of re-connecting to the Oracle website when Titan failed).

<sup>104</sup> Mandiant Report, ¶¶180-189.

<sup>105</sup> Mandiant Report, ¶ 189.

<sup>106</sup> December 4, 2009, Deposition of Uwe Koehler, at 105:3-106:9 (stating that in investigating the logs to determine the effects of TomorrowNow's downloading activity Oracle was "looking for a massive amount" of failed login attempts and that "this did not occur"); see also December 5, 2008 Deposition of Uwe Koehler, at 38:12-41:16 (in describing whether any actions by TomorrowNow affected the availability of any data on Customer Connection, stating that "[w]e never received complaints from customers that the systems had not been available or slow. And internally, to my knowledge, we are also not aware of that"). Further, see October 15, 2009 Deposition of Jason Kees, at 205:23-208:3 (stating that he was not aware of any impact on Oracle's systems related to any access by TomorrowNow of Siebel's support website).

that the problem was local to TomorrowNow and had no impact on any Oracle website.<sup>107</sup> And, as confirmed by deposition testimony of one of the authors of Titan, the log files themselves do not actually reflect what is happening on the Oracle systems, but instead, reflect what is happening with Titan.<sup>108</sup>

Additionally, the Mandiant Report does not include any analysis, or even indication, that Oracle's website capabilities or Oracle's log files were considered or reviewed in reaching the stated conclusions.

#### 9.5.4. The Mandiant Report's discussion of Support Web

The Mandiant Report states that “[t]he nature of these tools and the evidence of their use indicate to me an intentional, knowing effort to bypass any access or use restrictions and perform mass downloading from SupportWeb.”<sup>109</sup> Based on my conversation with a former TomorrowNow employee, Michael Garafola, I understand that once a user accesses SupportWeb, the user is allowed unlimited access to support materials relating to all Siebel versions without restriction.<sup>110</sup> The only restricted information on the SupportWeb site concerns Service Requests relating to problem reporting and resolution for specific customers and, thus, that information is only provided to the customer whose log-in is used to access SupportWeb.<sup>111</sup>

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<sup>107</sup> See BU01\JDEUpdates&Fixes1-14\Single Files\Abitibi Consolidated\World\World A73\SAR Information\logfile.txt (showing without further analysis that there was simply a problem with the connection) which is on TN-OR 02989997, TN (Hard Drive).33.

<sup>108</sup> See December 2, 2009 Deposition of John Ritchie, at 169:15-171:16.

<sup>109</sup> Mandiant Report, ¶ 175.

<sup>110</sup> March 10, 2010 conversation with Michael Garafola.

<sup>111</sup> *Id.*

9.6 The Mandiant Report's conclusions related to "master pools" ignores relevant facts

Another problem with the Mandiant Report's discussion regarding allegedly improper TomorrowNow downloading has to do with use of so called "master pools" of downloaded material:

SAP TN's downloads were originally stored in two "pools" or master libraries, one for all PeopleSoft customers and one for all JD Edwards customers. These pools of downloads were not linked or otherwise attributable to the customer whose credentials was used to take them.<sup>112</sup>

This statement from the Mandiant Report ignores relevant facts and as such is misleading.

9.6.1. The PeopleSoft folder was primarily for Retrofit customers, where the customers continued to pay Oracle maintenance

The PeopleSoft claimed "master pool" was primarily limited to Retrofit customers (which, as noted above, continued to pay Oracle maintenance while TomorrowNow was supporting them) and not "all PeopleSoft customers."<sup>113</sup> Most downloads for Critical Support customers were not stored in this alleged "master pool."<sup>114</sup> To the extent Critical Support customers downloads were contained in this pool, TomorrowNow used the customer's maintenance end date with Oracle to determine if the customer was entitled to the downloaded artifact.<sup>115</sup> The Mandiant Report ignores these facts.

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<sup>112</sup> Mandiant Report, ¶ 198.

<sup>113</sup> April 1, 2008 Deposition of Katherine Williams, at 88:5-20; December 6, 2007 Deposition of Shelley Nelson, at 101:20-102:22.

<sup>114</sup> *Id.*

<sup>115</sup> December 6, 2007 Deposition of Shelley Nelson, at 108:14-109:1 and 125:19-24.

9.6.2. The JDE “master pool” was only for the beginning of the JDE model and only existed for a handful of early customers

The Mandiant Report claims that TomorrowNow’s downloads were stored in a master library for “all JD Edwards customers.”<sup>116</sup> What is omitted from the Mandiant Report is that the TomorrowNow JDE team only had a few customers during the period in which downloads were pooled. Several TomorrowNow witnesses testified that only nine JDE customers were included in the TomorrowNow master library for JDE customers known as “AA Cleanup.”<sup>117</sup> Mr. Kreutz clearly testified that downloads for World customers Barrie Hydro, Koontz Wagner, Lexmark, Nitta Casings, Wabash and JW Harris were kept in the AA Cleanup folder, and downloads for OneWorld customers Wabash, Dana, Praxair and Yazaki-Europe were also kept in the AA Cleanup folder.<sup>118</sup> TomorrowNow’s documents further confirm that only these customers were included in the JDE master library, and only these customers possibly received downloads from the master library during the splitting process, which concluded in February 2006.<sup>119</sup> The practice of pooling JDE downloads was limited to these customers and did not continue—both of which are critical, relevant facts that the Mandiant Report ignores.

9.7 The Copyright registration analysis in the Mandiant Report shows most downloads are not established as being registered

Table 13 of the Mandiant Report states that approximately 9.6 million files containing SSMs were found on the DCITBU01 server.

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<sup>116</sup> Mandiant Report, ¶¶198-199.

<sup>117</sup> See February 19, 2008 Deposition of Mark Kreutz, at 168:2-172:23 and Pls Depo. Exs. 62 and 63; June 19, 2009 Deposition of Peter Surette, at 124:2-10 citing Pls. Depo Ex. 1466 at page 3.

<sup>118</sup> *Id.* at 168:25-169:10 (noting that Wabash was a World and OneWorld customer, bringing the total list of customers to nine).

<sup>119</sup> Pls. Depo. Ex. 67; Pls. Depo. Ex. 1466; TN-OR00051207; February 19, 2008 Deposition of Mark Kreutz, at 172:2-12; June 19, 2009 Deposition of Peter Surette, at 124:2-10.

9.7.1. Of the over 9 million files downloaded that the Mandiant Report accounts for in Tables 12 and 13, the Mandiant Report only asserts at most 827,506 actually match Registered Works

After examining all of TomorrowNow’s support servers, the Mandiant Report only identifies a total of 827,506 files that actually matched portions of Oracle’s Registered Works. Comparing this total to only the number the Mandiant Report lists for the DCITBU01 server, which is roughly 9.6 million files, shows that less than 8.6% of the files matched portions of Oracle’s Registered Works.

9.7.2. Copyright comparisons in the Mandiant Report

The breakdown of these 827,506 files found on the TomorrowNow servers that match files found in the Oracle Registrations are as follows:

<i>Oracle Source of Registered Work found on the TomorrowNow Servers</i>	<i>Matching Files</i>
Automated Databases Registrations <sup>120</sup>	226,444
PeopleSoft Registrations <sup>121</sup>	600,948
Individual Download Registrations <sup>122</sup>	114
<b>Total</b>	<b>827,506</b>

The Mandiant Report provides no analysis regarding whether any of the portions of the Registered Works found on the TomorrowNow servers contain any Protected Expression. The Mandiant Report simply assumes Protected Expression. For example, as discussed above, in the Mandiant Report section identifying assumptions, the Mandiant Report states that “file based objects,” such as SQR, SQC and COBOL files, and “online objects,” such as components of a

<sup>120</sup> Mandiant Report, Table 20 and Mandiant Report, ¶ 222.

<sup>121</sup> Mandiant Appendices, Appendix E, Table 20.

<sup>122</sup> Mandiant Appendices, Appendix N, Table 53.

PeopleSoft product that is stored in the database, are assumed to contain Protected Expression: “File-based Objects and Online Objects incorporate a substantial amount of Protected Expression.”<sup>123</sup> The flaws and issues with this assumption are detailed above.

The lack of analysis in the Mandiant Report is particularly troubling with respect to some of the broad registrations put at issue by Oracle, i.e. where the Registered Work is an entire release and product line (e.g., PeopleSoft HRMS 8.3). The Mandiant Report’s failure to undertake an analysis that shows what specific content in the files in the Registered Work contain Protected Expression is especially concerning here where, even if there is a match between a single downloaded file and a single file in the Registered Work, there is no identification in the Mandiant Report that the single downloaded file contains Protected Expression. Additionally, having one downloaded file match a single file in a broader Registered Work should also require some analysis to show the file is something more than a *de minimis* portion of the Registered Work. The Mandiant Report does not provide that analysis.

#### 9.8 No demonstration of harm in the Mandiant Report

Moreover, the Mandiant Report does not explain how, or even if, Oracle was harmed by these downloads. No analysis is offered in the Mandiant Report that indicates whether these customers were allowed to access material on the Oracle website relating to products that they were not licensed for (including, but not limited to, materials such as white papers, red papers or promotional material). No analysis is offered regarding whether customers ever used or even knew about Oracle materials in Registered Works that were downloaded by TomorrowNow for which the customer did not have a license. And no analysis is offered to show, assuming (without conceding) that Oracle is correct that the downloaded material for which a customer

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<sup>123</sup> Mandiant Report, ¶ 35.

was not licensed was used by TomorrowNow customers, how Oracle is harmed. In short, the Mandiant Report does not provide any demonstration of harm to Oracle resulting from TomorrowNow's allegedly improper downloading activity.

9.8.1. The industry intends broad dissemination and use of downloads. Given the design of customer support websites, it is inherent that customers are able to download more items than those related to the products they use

It should be noted that industry analysts such as Gartner, Inc. have openly stated that the manner in which Oracle distributes software creates an issue regarding license rights.<sup>124</sup> Gartner concluded that Oracle often intends broad dissemination and use of its software products, and “[a]s Oracle renames and rebundles its software products, it is often difficult to know which products were originally licensed.”<sup>125</sup> Given the manner in which Oracle packages its products and the design of its customer support websites, it is inherent that customers are able to download more items than those related to the products they use. An example of this can be found on Oracle's OTN Discussion Forums regarding Customer Connection.<sup>126</sup> Users have noted that “If I serch [sic] any thing [sic] in customer connection it is giving vast number of irreleavnt [sic] results.” In response, an Oracle ACE Member<sup>127</sup> specifically stated: “Yeah, you're right, searching against the CC is a nightmare. Plenty results, plenty irrelevant. All of the information is there but difficult to find . . . the *brute force* method is still the one I use the most often.”

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<sup>124</sup> See, e.g., TN-OR00327309-TN-OR00327316 (“How to Negotiate Oracle's Software License Agreement”).

<sup>125</sup> *Id.* at TN-OR00327311.

<sup>126</sup> See OTN Discussion Forums: PS Customer Connection available at <http://forums.oracle.com/forums/thread.jspa?threadID=686088>, and produced in Appendix 8 with bates numbers SAP-GRA-000020-21.

<sup>127</sup> According to Oracle's website, an Oracle ACE Member is “known for their strong credentials as Oracle community enthusiasts and advocates, with candidates nominated by anyone in the Oracle Technology and Applications communities.” See [http://www.oracle.com/technology/community/oracle\\_ace/index.html](http://www.oracle.com/technology/community/oracle_ace/index.html).

9.8.1.1 There are numerous dependencies between products available to be downloaded which make it more difficult for a user to determine the exact materials the user is allowed to access

It is also the case that users cannot easily discern which customer support materials they are allowed to access because often, customer support websites allow access to the entire website with use of a credential and password rather than to specific materials to which the customer is licensed.<sup>128</sup> There are numerous dependencies between products available to be downloaded, including the bundling of data relating to more than one product.<sup>129</sup>

Moreover, as stated above, the Mandiant Report does not explain how or even if Oracle was harmed by these downloads.

9.8.1.2 The Mandiant Report ignores Oracle testimony

An Oracle corporate witness testified in deposition that there was no access controls implemented in the Oracle customer support websites that constrained customers to only access customer support material to which they were licensed.<sup>130</sup>

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<sup>128</sup> See TN-OR00327309-TN-OR00327316, at TN-OR00327311. *See also* November 16, 2009 Expert Report of Francoise Tourniaire (finding that of the 80 software vendors evaluated, 60% of the vendors allowed their customers to access all downloadable materials on the site—not just the licensed materials—after entering a credential and password to enter the site).

<sup>129</sup> See TN-OR04217886 (listing many ESUs relating to multiple system codes); TN-OR02989997, TN(HardDrive)33, at JDEUpdates&Fixes1-14/Single Files/ACO Produits Polymers/OneWorld/ElectronicSoftwareUpdates/Xe/JD16881.htm (ESU showing objects related to more than one system code); TN-OR0298997, TN(HardDrive)33, at JDEUpdates&Fixes1-14/Single Files/BASF/OneWorld/ElectronicSoftwareUpdates/Xe/JD18810.htm (ESU showing objects related to more than one system code); ORCLX-MAN000016, Tab 8.12, Rows 3833-3835 (showing ESU JK11105 as containing objects for system code 01 [Address Book], 03 [Accounts Receivable] and 00 [Technical Foundation]). *See also* February 13, 2008 Motion to Compel Hearing Before Judge Legge, at 18:14-19:21 (generally explaining relationship between JD Edwards system codes and ESUs), 26:25-27:2 (explaining that many ESUs have multiple objects and system codes embedded within them).

<sup>130</sup> June 12, 2009 Deposition of Brad Nolan, at 78:22-79:17 (stating that customers could search over multiple areas of Customer Connection after entering a password).

- 9.8.2. For those downloads that were allegedly stored in an incorrect customer folder, the Mandiant Report does not show whether that customer was permitted access to the content of the actual artifact at the time

The Mandiant Report claims that numerous html files were stored in customer folders where the customer's credentials were not used for the download. The Mandiant Report fails to show that the customer's credentials used for the original download were for a customer that was not permitted access to the html file. Moreover, it also fails to show that the customer whose folder stored the html file was not permitted access to the content in that artifact.

- 9.9 The Mandiant Report's Information Station section ignores the program's design

The Mandiant Report claims that Information Station was a search tool designed to search across "TN's download libraries."<sup>131</sup> The Mandiant Report ignores the testimony from TomorrowNow's witnesses that Information Station was designed to only search one customer's downloads at a time. The program required a user to input which customer's download folder to search.<sup>132</sup>

The Mandiant Report cites a section of Mark Kreutz's testimony for the position that TomorrowNow used Information Station's search capabilities to cross-search customer's libraries if the solution could not be found in the customer's library who needed it.<sup>133</sup> This is taken out of context. The situation that the Kreutz testimony is referring to involves an instance where a TomorrowNow support engineer could not find a fix for a customer using Information

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<sup>131</sup> Mandiant Report, ¶¶ 217-218.

<sup>132</sup> *See, e.g.*, February 19, 2008 Deposition of Mark Kreutz, at 219:17-23; 226:2-5 (stating that there was no purpose for Information Station aside from searching within a single customer's download library); 233:19-235:22 (stating that Mr. Kreutz was not aware of a situation where Information Station was used to search for a specific download over multiple customer's libraries); and 236:15-20; October 30, 2007 Deposition of Mark Kreutz, at 131:16-132:5. *See also* April 10, 2009 Deposition of Patti VonFeldt, at 110:8-14 (the program required a user to input which customer's download folder to search). *See also* TN-OR01534808 - TN-OR01534809 (rejecting a proposal suggesting that Information Station be modified to allow searching for a SAR across all customers); TN-OR00699658-TN-OR00699679 (describing the indexing of downloaded materials "on behalf of the customer").

<sup>133</sup> Mandiant Report, ¶ 218, note 97.

Station. Thinking there may be a problem with Information Station, the employee referred the problem to a TomorrowNow software engineer responsible for developing Information Station, who ran searches in other customer libraries to determine if it was an issue with Information Station.<sup>134</sup> The TomorrowNow software engineer reported back that the fix was not downloaded for that customer and therefore, “a one-off fix will have to be created . . . to address this issue.”<sup>135</sup> The testimony cited in the Mandiant Report does not support the proposition that the fix located was then provided to the original customer. Indeed, Mr. Kreutz disagreed with Plaintiffs’ counsel when asked if Kreutz would agree to this interpretation.<sup>136</sup>

#### 9.9.1. Information Station was used mainly for JDE customers

Information Station was mainly used for JDE customers.<sup>137</sup> Corporate witness testimony indicates that, to the extent a PeopleSoft customer download folder was organized for Information Station, the tool was not actually used to service that PeopleSoft customer.<sup>138</sup>

#### 9.10 Customers not implicated by claims in Conclusion 1

Appendix 4 to this Report lists customers not implicated by the claims in Conclusion 1.<sup>139</sup> This analysis resulted in my determination of customers for which TomorrowNow did no

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<sup>134</sup> See Pls. Depo. Ex. 72, TN-OR00055600-TN-OR00055602.

<sup>135</sup> *Id.*

<sup>136</sup> See February 19, 2008 Deposition of Mark Kreutz, at 240:3-19 (stating that Kreutz “would not agree to that at all” in response to counsel’s request that Kreutz agree a TomorrowNow employee used Information Station to find a fix in one customer’s library and provide that fix to a different customer); 240:24-242:9 (stating that one TomorrowNow employee was notifying the other TomorrowNow employee of the problem locating the fix needed with Information Station, asserting there was a problem “in the tool itself--the Information Station tool,” and that, in investigating whether Information Station had a problem, one employee researched fixes in other customer libraries “[n]ot for the purposes of providing that fix ...but for the purposes of resolving an issue with Information Station”).

<sup>137</sup> See February 19, 2008 Deposition of Mark Kreutz, at 226:13-227:10 (testifying that he believed all of the customers that were indexed for Information Station were J.D. Edwards customers); December 6, 2007 Deposition of Shelley Nelson, at 119:6-8 (stating that Information Station was primarily used as a J.D. Edwards search tool at TomorrowNow).

<sup>138</sup> See December 6, 2007 Deposition of Shelley Nelson, at 119:2-17. See also Deposition of Tracy Hallenberger, at 18:21-22:8.

downloading of any kind. The following table is a summary of Appendix 4 and shows how many PeopleSoft, JDE and Siebel product service subscribers for which no downloading was done.<sup>140</sup>

<i>Product Family</i>	<i>Customer Count</i>
PeopleSoft	39
JDE	53
Siebel	10
Total	98 <sup>141</sup>

## 10. Conclusion 2

### 10.1 Brief synopsis

Section VII of the Mandiant Report titled CONCLUSION 2: SAP TN MADE THOUSANDS OF FULL OR PARTIAL COPIES OF ORACLE ENTERPRISE APPLICATION SOFTWARE AND DATABASE SOFTWARE contains flawed analysis and misguided conclusions and opinions. The section provides misleading and inaccurate information regarding

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<sup>139</sup> See Appendix 4, which contains the “Non-Accused Conduct” spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>140</sup> The analysis related to this summary includes customers for which there were customer-specific downloads as well as all customers potentially implicated by the Mandiant Report’s “master pool” allegations. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13, for a detailed explanation of the methodology used in determining which customers to consider as part of the alleged “master pools.” The conservative approach that was taken was to consider all PeopleSoft customers on-boarded before the date of the first customer-specific download located on TomorrowNow’s servers as potentially being implicated as part of the PeopleSoft “master pool” allegations.

<sup>141</sup> Because of overlap between customers and product families, the total number of customers for which TomorrowNow conducted downloads does not represent the number of customers if the totals for each product family are added (102). For example, TomorrowNow did not perform PeopleSoft downloads nor did they perform Siebel downloads for Alberto-Culver or Alcatel, and therefore both customers are included in the PeopleSoft and Siebel counts. However, in the Total count, each customer only counts once. Additionally, while Tomorrow did not perform Siebel downloads for CSBP Limited, TomorrowNow did perform them related to JDE. Similarly, while TomorrowNow did not perform PeopleSoft downloads for Merck & Company, Inc., it appears that TomorrowNow did perform them related to JDE. Therefore, both CSBP and Merck are also removed from the total count.

the archiving activities performed by TomorrowNow on behalf of its customers. The Mandiant Report also supplies incomplete and inaccurate information regarding analysis of the purported “Registered Works” upon which Oracle is claiming Copyright infringement.

10.2 The analysis of the materials in the CD binders referenced in the Mandiant Report leads to misleading conclusions

The Mandiant Report implies that thousands of copies of Oracle application and database software were stored in binders at TomorrowNow offices:

During its on-boarding process, SAP TN requested a copy of the Oracle Enterprise Application Software that the customer had asked SAP TN to support. Typically, SAP TN copied these CDs/DVDs of Oracle Enterprise Application Software, and maintained these copies in a binder with a label corresponding to the software type and release level.

SAP TN’s CD binders contain thousands of CDs, photocopies of CDs, and other related documents.<sup>142</sup>

The implication is misleading.

10.2.1. The thousands of CDs alluded to in the Mandiant Report is incorrect.

As the Mandiant Report later acknowledges, the actual number of copies of Oracle Application and Database Software that was stored in “CD Binders” at TomorrowNow offices is much smaller: “These 14,717 physical disks included 778 copies of Oracle Enterprise Application Software, PeopleTools, and Oracle Database Software.”<sup>143</sup>

10.2.2. Only 4 JDE customers and no Siebel customers had CDs in the CD binders

These 778 copies of Oracle Enterprise Application Software in the CD Binder Collection only includes four JDE customers and no Siebel software.<sup>144</sup>

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<sup>142</sup> Mandiant Report, ¶¶ 228-229.

<sup>143</sup> Mandiant Report, ¶ 230.

<sup>144</sup> Mandiant Report, ¶ 230 and Appendix B, Section 7, Table A.

### 10.2.3. The analysis ignores the purpose of the CD binders

Moreover, the information presented in the Mandiant Report overlooks the purpose for the storage of the software in the binders, which was to provide an archive service for TomorrowNow's customers. Several witnesses testified that TomorrowNow kept its customer's software for archival and safeguarding. For example, Andrew Nelson testified that:

The vendor support archive library would have been a -- a value proposition if a customer -- if a customer had, after we had . . . accepted CDs that they had provided us, if they needed access to that, we -- you know, part of what we had done was to make sure that we had kept that safeguarded so that if they needed it, we could provide it back to them at a later date.<sup>145</sup>

A contractor assisting TomorrowNow further testified: "It is my understanding that -- that the CDs were sent to TomorrowNow and put in the CD archive."<sup>146</sup>

### 10.3 Claims regarding Client CD Jukebox

The Mandiant Report defines *Client CD Jukebox* as "the central repositories for Oracle original Install Media identified on two SAP TN servers, TNFS\_01 and TEMPSTORE"<sup>147</sup> and then goes on to assert that one of the customer on-boarding steps that was allegedly performed by TomorrowNow was to use the so-called Client CD Jukebox to store JDE and PeopleSoft install media received from customers: "SAP TN's general practice was to copy the Oracle Install Media received from customers to designated areas on SAP TN's network called the Client CD Jukebox."<sup>148</sup>

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<sup>145</sup> April 29, 2009 Deposition of Andrew Nelson, at 292:15-21.

<sup>146</sup> November 11, 2009 Deposition of Jeffrey Buehrle, at 130:7-20. *See* Pls. Depo. Ex. 266, at TN-OR00012917 (discussing TomorrowNow's onboarding process and suggesting the PeopleSoft customers request a CD shipment from Oracle in order to compile "a master archive of all [the] available licensed software" for the customer); Pls. Depo. Ex. 215, at SAP-OR00005041. *See also* TN-OR00184963-TN-OR00184964, TN-OR00065864-TN-OR00065868, TN-OR00173285-TN-OR00173287, TN-OR00308821-TN-OR00308822 (example Urgent Steps Letters describing the archival process).

<sup>147</sup> Mandiant Report, ¶ 53.

<sup>148</sup> Mandiant Report, ¶ 234.

The Mandiant Report then accuses TomorrowNow of creating a library of multiple versions of JDE and PeopleSoft software:

By collecting and copying the original Oracle Install Media from each customer, SAP TN was able to build a library of many versions of software released for the PeopleSoft and JD Edwards product lines.<sup>149</sup>

There are problems with this Mandiant Report accusation. First, as with all other accusations of improper use of Protected Expression, the Mandiant Report does not disclose what Protected Expression is being infringed. The Mandiant Report does not state which of the actual applications or modules containing Protected Expression was found on the Client CD Jukebox. There is no analysis of what was stored on the Client CD Jukebox that TomorrowNow customers were not entitled to.

Second, these statements mischaracterize both the context of the TomorrowNow activity and the purpose of this common technical practice. The purpose of the “CD Jukebox” was to allow for the temporary storage of copies of installation software from media obtained from TomorrowNow’s customers during the on-boarding process.<sup>150</sup> This temporary storage was used by the TomorrowNow’s technical staff as a landing point for the content of installation CDs received from certain new customers. For those customers, the content of the CDs was copied to

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<sup>149</sup> Mandiant Report, ¶ 236.

<sup>150</sup> *See, e.g.*, February 6, 2008 Deposition of John Baugh, at 86:10-25 (describing that CD Jukebox as having the software that TomorrowNow needed to perform the install for the customer); November 20, 2009 Deposition of Jeffrey Buehrle, at 60:16-61:22.

customer specific folders on the “CD Jukebox” and then installed.<sup>151</sup> After installation, the general practice was to delete the customer specific folders from the “CD Jukebox.”<sup>152</sup>

#### 10.3.1. Only PeopleSoft customers

It should be noted that all of the installation software temporarily stored on the “CD Jukebox” was for supported PeopleSoft products received from customers. No JDE or Siebel software was stored on the “CD Jukebox.”<sup>153</sup>

#### 10.3.2. “CD Jukebox” concept is common in the industry. It is not a “library”

The “CD Jukebox” concept is common in the industry. A temporary resting place for data from media such as CDs or other sources is frequently used for many purposes in computer installations. It is not the “library” the Mandiant Report characterizes.

#### 10.4 Mandiant Report’s discussion of environment components

The Mandiant Report adopts multiple inconsistent and confusing definitions of the term “environment.” As stated above, a statement in paragraph 37 suggests that an “environment” comprises some or all components of an instances of Oracle Enterprise Application Software. This is inconsistent with the definition given in paragraph 64, which states in part that an environment is the “combination of an installation . . . of Oracle Enterprise Application Software

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<sup>151</sup> See February 6, 2008 Deposition of John Baugh, at 86:10-87:12 (describing that it was copied to customer specific folders in the Jukebox); November 20, 2009 Deposition of Jeff Buerhle, at 182:12-183:17 (describing the CD Jukebox as a temporary storage site and stating the media was removed after the installation was complete; the originals were kept on CDs), 130:7-20 (noting TomorrowNow retained copies of the CDs for archival purposes); September 22, 2009 Deposition of Peggy Lanford, at 60:9-64:2 (describing the CD copy and archival process and explaining the purpose of the copy process: “Clients would lose them from time to time. . . . They would call, request another copy of that CD. We would make one and ship it to them”).

<sup>152</sup> See February 6, 2008 Deposition of John Baugh at 86:10-87:12 (describing that it was copied to customer specific folders in the Jukebox); November 20, 2009 Deposition of Jeff Buerhle at 182:12-183:17 (describing the CD Jukebox as a temporary storage site and stating the media was removed after the installation was complete; the originals were kept on CDs)

<sup>153</sup> See, e.g., TNFS01\_F \C\Client CD Jukebox, TN-OR06577704, TN(Hard Drive).93 (showing only PeopleSoft install media); Tempstore\_CE\D\Client CD Jukebox, TN-OR05249613, TN(Hard Drive).84 (showing only PeopleSoft install media).

(base application) *and* a corresponding database.”<sup>154</sup> This leads to confusion as to what the Mandiant Report counts of environments actually mean, and may result in an over count of environments based on what definition is used.

#### 10.5 The Mandiant Report’s comparison of certain software to Registered Works

The Mandiant Report provides only a limited comparison of certain software to Oracle’s Registered Works. Again, the report focuses almost solely on PeopleSoft and uses different approaches in analyzing the different software lines.

##### 10.5.1. The Mandiant Report uses one approach with code compare for PeopleSoft and OneWorld XE

The Mandiant Appendices, Appendix H, devotes nearly thirty pages of analysis pertaining to the presence of Registered Works in PeopleSoft environments.<sup>155</sup> Over these numerous pages, the Mandiant Appendices state that a comparison using MD5 hash values and file paths was performed comparing the claimed PeopleSoft Registered Works and files installed on TomorrowNow’s network.<sup>156</sup>

##### 10.5.1.1 The Mandiant Report relies on undisclosed expert opinions regarding creative/protected expression for other releases and product lines

After deciding on the standard for examining the PeopleSoft software, the Mandiant Report does not even follow this declared MD5 hash value comparison standard. Instead, the Mandiant Report provides uneven treatment of different product lines by relying upon the expert opinions of interested parties, who I understand were neither disclosed as expert witnesses nor provided a written report containing their opinions.<sup>157</sup>

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<sup>154</sup> Mandiant Report, ¶ 64 (emphasis added).

<sup>155</sup> Mandiant Appendices, Appendix H, pp. 51-82.

<sup>156</sup> *Id.* at 54-56 (describing the process of comparing MD5 hashes to the Registered Works).

<sup>157</sup> *See, e.g.*, Mandiant Report, ¶¶ 117-123 (relying on discussions with Oracle employees Edward Screven, Jason Rice, Buffy Ransom, and Greg Story to explain the background on J.D. Edwards software), 224 (relying on a discussion with Mr. Screven to understand the structure of J.D. Edwards’ software), 270 (relying on Mr. Rice

10.5.2. The Mandiant Report ignores that TomorrowNow did not have installed versions for most of the JDE OneWorld and World customers and releases

The Mandiant Report did not identify the presence of the majority of releases serviced by TomorrowNow for JDE OneWorld and World customers. The following table<sup>158</sup> identifies the Mandiant Report findings with respect to the presence of partial installs of the OneWorld and World releases that were available during the period from 2005 to 2007:<sup>159</sup>

<i>OneWorld or World by Release</i>	<i>Presence on TomorrowNow's Servers (Y/N)</i>
One World 8.0	N
One World 8.1	N
One World 8.9	N
One World 8.11	N
One World 8.12	N
One World B7.3.3.2	N
OneWorld XE	Y
World A7.3	Y
World A8.1	Y
World A9.1	N

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and Mr. Screven for a determination of what was included in Cumulative Update 8 for J.D. Edwards EnterpriseOne XE), 274 (relying on Mr. Screven for a determination of what was included in Cumulative Update 7 for J.D. Edwards World A7.3), 277-278 (relying on Oracle employee Dan Vardell for an understanding of Siebel software), and 280 (relying on Oracle employees Dan Vardell and Mr. Screven for an understanding of the Siebel software allegedly protected by Oracle's Registered Works).

<sup>158</sup> See TN-OR04446719, TN (Hard Drive).75; TN-OR06515454-TN-OR06515455 (indicating TomorrowNow began service to JDE customers in on 1/1/2005); Pls. Depo. Exs. 45, 52, 55 (listing the releases of environments found on TomorrowNow's network).

<sup>159</sup> Only partial installs of two of the releases, World A7.3 and OneWorld XE, were on TomorrowNow's system in early to mid 2005. See, e.g., June 16, 2009 Deposition of Keith Shankle, at 14:18 (noting he began working for TomorrowNow during early January 2005), 38:6-10 (noting that Shankle built the two JDE World environments); October 30, 2007 Deposition of Mark Kreutz, at 6:3-5, 189:14-19 (indicating that he arrived in October 2005 and the A7.3 and XE releases had already been installed). The World A8.1 release was only available on TomorrowNow's system in early 2007. See February 19, 2008 Deposition of Mark Kreutz, at 115:22-116:9 (agreeing that the A8.1 environment was not created until January 2007). Further, it is likely that these three releases were removed by the end of November 2007. Regardless, all TomorrowNow local environments were removed by April 30, 2008. See March 5, 2009 Deposition of Mark White, at 334:1-337:7.

10.5.3. The Mandiant Report compares OneWorld XE, but does not compare any of the other versions (e.g., 8.0-8.12)

The Mandiant Report does compare the OneWorld XE versions, but does not compare any of the other versions, such as 8.0 through 8.12. As the table above shows, this is presumably because TomorrowNow did not have any of these versions installed as environments on their servers.

## 10.6 Oracle Database Server Software

The Mandiant Report alleges that 109 copies of Oracle Database Software were found on TomorrowNow servers.<sup>160</sup>

10.6.1. The Mandiant Report counts number of databases not the number of database installations

The number of installed database software instances in the Mandiant Report are incorrect. Apparently, the Mandiant Report is combining instances of the Oracle Database Software with instances of Oracle databases. Deposition testimony indicates that only ten or eleven installations of Oracle Database Software may have been installed on TomorrowNow's servers.<sup>161</sup>

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<sup>160</sup> Mandiant Report, ¶¶ 282-291.

<sup>161</sup> See December 3, 2009 Deposition of John Baugh, at 171:15-24, 177:5-180:17, and 183:6-22 (indicating that TomorrowNow had 10 full installations and one partial installation of Oracle Database software). Additionally, Mr. Baugh testified that someone at TomorrowNow likely installed a version of Oracle database server software on a historical single processor server at TomorrowNow. See December 4, 2009 Deposition of John Baugh, at 209:2-20 (indicating that in 2003, TomorrowNow may have had an Oracle Database on a Solaris 7 server); Pls. Depo. Ex. 1837. See also Oracle database installations likely accessed and installed on the servers identified in Defendants' First Supplemental Responses and Objections to Plaintiffs' Fifth Set of Interrogatories to Defendant TomorrowNow, Inc. and Fourth Set of Interrogatories to Defendants SAG AG and SAP America, Inc. No. 122 (which show 14 likely installations on 10 servers, including virtual machines).

### 10.6.2. Listing of processors and cores for applicable servers

The following table shows the number of processors and aggregate “cores” of each of the servers identified as potentially having an installed version of Oracle database server software<sup>162</sup>:

<i>Server</i>	<i>Type</i>	<i>Processors</i>	<i>Core Type</i>	<i>Cores</i>
PSDEV01	AIX	4	Dual	8
PSDEV02/PSIBMAIX1	AIX	4	Dual	8
DCPSTEMP01	Windows	2	Dual	4
DCPSTEMP02	Windows	4	Quad	16
DCSBLPROD03	Windows	2	Dual	4
TNFS01	Windows	2	Dual	4
TN-DellIL2650	Windows	2	Single	2

### 10.6.3. There is no technical reason to have an Oracle database installation for each customer

The Mandiant Report indicates that there is a much higher number of Oracle Database Management Software “copies” than can be identified by analysis of the TomorrowNow servers. As noted above, this appears to be the result of adding the count of database instances to the number of Oracle Database Management software installations. The resultant count of 109 database “copies” that the Mandiant Report allegedly found on TomorrowNow’s servers does not make technical sense.

#### 10.6.3.1 Database installations are designed to support numerous databases

Database management systems, like Oracle’s, are designed to support multiple databases concurrently. There is no technical reason that every database instance would require an individual, installed copy of the Oracle database management software.

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<sup>162</sup> February 19, 2010 correspondence from Joshua Fuchs to Nitin Jindal, which is located in Appendix 7 and has bates numbers SAP-GRA-000015-19.

10.6.3.2 There is no technical reason why TomorrowNow could not support PeopleSoft and Siebel customers using the limited Oracle database installations TomorrowNow installed and the associated databases

The existing installations of Oracle's database management software are more than ample to support the subset of TomorrowNow customers subscribing to the PeopleSoft and Siebel support services and who used an underlying Oracle database for those applications.

10.6.3.3 There is no technical reason why an Oracle enterprise software user would need more than one Oracle database installation to support multiple databases for their production and demo environments

The Mandiant Report's counts of "copies" of Oracle's database software include counting multiple copies for the same TomorrowNow customer.<sup>163</sup> There is no technical reason that a user of Oracle enterprise software would need more than one Oracle database installation to support multiple databases for their production and demo environments.

10.6.4. TomorrowNow did not provide support for Oracle database products

I am unaware of any Oracle accusation that TomorrowNow provided support for Oracle database management products. Also, I am unaware of any occurrence of TomorrowNow providing support for Oracle database management products.

10.6.5. The Meyer Report's analysis, which relies on the Mandiant Report, does not make technical sense

I have reviewed the February 23, 2010 version of the Supplemental Report of Paul K. Meyer (the "Meyer Report"). The Meyer Report's conclusion that the "value of use of Oracle's database copyright materials of \$55.6 million" is allegedly justified, in part, on the flawed analysis found in the Mandiant Report.<sup>164</sup>

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<sup>163</sup> Mandiant Report, ¶¶ 282-291.

<sup>164</sup> See, e.g., Meyer Report, ¶¶ 255 and 257.

10.6.5.1 As noted, there is no technical reason for a database installation for each customer

Although the Meyer Report uses different numbers<sup>165</sup> than the Mandiant Report, both are based on the flawed assumption that an instance of an Oracle database should be counted as a copy of Oracle's database management software. As noted above, there is no technical reason that each separate database instance would require a separate database software system installation. Oracle's software is designed to support multiple databases per database management software instance.

10.6.6. Even if the Meyer Report is correct, TomorrowNow was not using the Oracle database installations for production environments. Therefore, TomorrowNow would technically only need a single processor for each

The Meyer Report assumes an eight processor server in calculating some of the license values.<sup>166</sup> Assuming, *arguendo*, that the Meyer Report was correct in the count of database management software installations found on TomorrowNow's servers, there is no technical reason to assume an eight processor configuration for each instance. To the extent that TomorrowNow was using any Oracle database management software in support of its customers, the use was not for production. Thus, for TomorrowNow's purposes, a single processor configuration would have been ample for any instance of Oracle's database management software.<sup>167</sup>

Based on my understanding of TomorrowNow's services, TomorrowNow's selection of server configurations with more than one processor would have had nothing to do with the database management software requirements. These larger configurations were needed to

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<sup>165</sup> There is no explanation for the variance between the number of Oracle database installations in the Meyer Report and that reported in the Mandiant Report.

<sup>166</sup> Meyer Report, ¶ 252.

<sup>167</sup> March 10, 2010 conversation with John Baugh.

support the volume of business activity anticipated or performed by TomorrowNow unrelated to the requirements for database management.<sup>168</sup>

Along the same lines, even if the Meyer Report is right in that TomorrowNow would need an instance of Oracle Database Software for each instance of an Oracle database, there would not be a need for more than a single processor server to support it. Assuming an eight processor configuration does not make any technical sense.

#### 10.6.7. The Meyer Report increased the numbers based on the alleged contamination identified in the Mandiant Report

As noted, the counts of supposed “copies” of Oracle database software in the Meyer Report and the Mandiant Report are different. Although the Meyer Report does not address this issue directly, it appears that the difference may be due to different accounting of alleged “contamination.” But, there is no explanation in the Meyer Report that accounts for this difference and the Mandiant Report does not include the “contamination” analysis found in the Meyer Report.

Also, I am unaware of any analysis in the Mandiant Report that could be used as a basis for the Meyer Report counts of Oracle Database Software allegedly found on TomorrowNow’s servers. And, there is no indication whatsoever in the Meyer Report that either Meyer is qualified to perform, or actually performed, the counts himself independently of Mandiant and the Mandiant Report.

#### 10.6.7.1 The Meyer Report counts are overstated regarding alleged “contamination” and the explanation in the report for the counts makes little technical sense

The Meyer Report offers the opinion that all 172 TomorrowNow PeopleSoft HRMS customers required an Oracle Database Software license.<sup>169</sup> This count is overstated. The

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<sup>168</sup> March 10, 2010 conversation with John Baugh.

<sup>169</sup> Meyer Report, ¶ 257.

Meyer Report opinion relies on a misapplication of the Mandiant Report analysis regarding “contamination.” The Meyer Report states:

... I further understand through discussion with Oracle’s expert, Kevin Mandia, that over the course of TomorrowNow’s operational lifetime, it is more likely than not that every PeopleSoft HRMS customer received support delivered, at least in part, through TomorrowNow’s use of the Oracle database Software.<sup>170</sup>

This opinion makes no technical sense. To the extent that TomorrowNow installed copies of Oracle’s software, the purpose was to mimic the customer’s database operating environment for trouble shooting, debugging Oracle’s software, etc. What the Meyer Report fails to account for is that not all PeopleSoft HRMS customers were Oracle database customers. As the Mandiant Report concedes, the PeopleSoft HRMS software operated with SQL Server, DB2 and other database management software packages, including, but not limited to, Oracle’s.

#### 10.7 Customers not impacted by allegations in Conclusion 2

Appendix 4 to this Report documents the TomorrowNow customers that Mandiant did not identify as having CDs or environments on TomorrowNow’s servers or premises.<sup>171</sup> The following table is a summary of Appendix 4 and shows how many PeopleSoft, JDE and Siebel product service subscribers that were not identified as having CDs or environments on TomorrowNow’s servers:<sup>172</sup>

<i>Product Family</i>	<i>Customer Count</i>
PeopleSoft	64
JDE	133

<sup>170</sup> Meyer Report, ¶ 257.

<sup>171</sup> See Appendix 4, which contains the “Non-Accused Conduct” spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>172</sup> *Id.*

Siebel	7
Total	199 <sup>173</sup>

## 11. Conclusion 3

### 11.1 Brief Summary

Section VIII of the Mandiant Report titled CONCLUSION 3: ANALYSIS OF SAP TN FIX DEVELOPMENT AND DELIVERY CONFIRMED SIGNIFICANT CROSS-USE AND CONTAMINATION contains flawed analysis and misguided conclusions and opinions. The majority of the Mandiant Report’s analysis comes in the form of so called measures contained in the Appendices. The analysis almost exclusively focuses on the PeopleSoft HRMS product support “fix” activities performed by TomorrowNow on behalf of its PeopleSoft customers. There are problems with the “fix” analysis that corrupt the findings.

Additionally, the Mandiant Report’s limited comparisons between TomorrowNow’s customer deliverables and Oracle’s Registered Works is devoid of discussions regarding Protected Expression and the extent of any alleged copying. Conclusion 3 also contains no information regarding the JDE OneWorld product suite or the Siebel product suite.

### 11.2 Almost entire focus of Conclusion 3 is on PeopleSoft HRMS

The Mandiant Report presents “fix” analysis, findings and opinions almost exclusively for TomorrowNow customer support activities for TomorrowNow’s PeopleSoft HRMS subscribing customers. As noted above, it almost completely ignores that over half of TomorrowNow’s business activities involved support for other product lines, including JDE and Siebel, as well as other services not accounted for in the Mandiant Report, such as call support.

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<sup>173</sup> Because of overlap between customers and product families, the total number is not reflective of simply adding the numbers for each product family (204). Alberto-Culver, Alcatel and Merck were only counted once. And, MKS and CSBP were removed from the total because they were identified as potentially having Siebel software on TomorrowNow’s network.

### 11.3 The Mandiant Report counts regarding TomorrowNow's PeopleSoft HRMS Payroll "fix" activity

The Mandiant Report presents analysis, findings and opinions in the form of "measures" or calculations obtained from data found on TomorrowNow's network:

Mandiant examined the available data in Delivered Updates and Fixes, SAS, BakTrak, and the Data Warehouse, and identified measures relevant to analyzing SAP TN's Fix delivery process. These measures captured information concerning the PeopleSoft HRMS Objects that SAP TN copied, modified, and distributed to its customers, the number of customers who received Fixes, the number of Fix Objects that were delivered to customers, and the occasions where the Oracle Enterprise Application Software of one customer was used to create Fixes to support other customers.<sup>174</sup>

The various "measures" are reported in the Appendices to the main body of the Mandiant Report. The "measures" are apparently intended to capture data to support Oracle's accusation of allegedly improper "cross use" of Oracle's Registered Works and the alleged resulting "contamination."

#### 11.3.1. Examples of problems in the Mandiant Report with calculating the "measures"

There are several problems with the analysis used to calculate the "measures." The paragraphs below provide an example of some of the problems I have identified.<sup>175</sup>

##### 11.3.1.1 HRMS Fix population is overstated

Under the overall section heading "SAP TN-attributed Fixes for PeopleSoft HRMS,"<sup>176</sup> the Mandiant Report specifically notes the importance of eliminating certain Fix IDs from the HRMS Fix population analysis. The Mandiant Report states that the elimination needs to take place for Fix IDs that were either not part of the HRMS fix population or would potentially cause

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<sup>174</sup> Mandiant Report, ¶ 294.

<sup>175</sup> Based on the timing, complexity, and burden associated with reviewing and analyzing the Mandiant Report's associated procedures, scripts, and databases, and the serial supplementations of the Mandiant Report over the past several months, I expressly reserve the right to supplement this section of my report.

<sup>176</sup> Mandiant Appendices, Appendix K, p. 85.

over counting.<sup>177</sup> For example, in Section 2 of Appendix K, the Mandiant Report removed Fix IDs, such as fixes for products other than HRMS, test fixes, CSS bundles for which there were also CSS Fix IDs, and “Synch-up Bundles.” The Mandiant Report specifically identified the importance of removing these Fix IDs by stating that “Mandiant focused on the Updates and Fixes that were delivered to SAP TN customers, while also attempting to eliminate the possibility of ‘double counting’ duplicated objects.”<sup>178</sup>

Despite this explanation, in Section 3 of Appendix K, where the Mandiant Report describes the calculation process for each of the measures that form part of the Conclusion 3 opinions, the Mandiant Report ignores the Fix IDs that were removed in Section 2. In fact, Appendix K, starts with an initial count of 1773 Fix Ids from SAS. To arrive at an allegedly more accurate number of HRMS fixes, Mandiant performed a number of steps that reduced the count to 1609.<sup>179</sup> However, in Section 3 “Determination of ‘First Deliverable,’” the Mandiant Report, without explanation, reverts back to the original count of SAS Fix Ids which is 1773. Since the measures are apparently intended to relate to “HRMS Fix analysis” reverting back does not seem logical.<sup>180</sup> The Mandiant Report offers no explanation of why this larger count was used. By including Fix IDs that are unrelated to the HRMS fix population, Mandiant’s measures are not representative of the actual HRMS Fix population.<sup>181</sup>

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<sup>177</sup> Mandiant Appendices, Appendix K, Section 2, pp. 90-91.

<sup>178</sup> Mandiant Appendices, Appendix K, Section 2, p. 90.

<sup>179</sup> Mandiant Appendices, Appendix K, Section 2, p. 92.

<sup>180</sup> Mandiant Appendices, Appendix K, Section 4, p. 95.

<sup>181</sup> For example, while not an exhaustive list, the Mandiant Report includes Fix IDs 0704054394, 0916047804, and 1027043335, which are all Fix ID records for the financials product line (“FDM”) and not the HRMS product line. Master Fix ID 0704054394 is a record for a FDM payables fix. *See* TN-OR04446719, TN (Hard Drive).75 at Enterprise View 4. Master Fixes\4. By Fix ID/Select 0704054394. The client specific fix associated with this Master Fix ID contains a .dat file (prj0704054394\_tn.dat). TN-OR04497668, TN (Hard Drive).78 at Mail03\ClientFix\0704054394\MOA-TN-070454394\MOA-TN-070454394.zip. This .dat file is also located in the Mandiant Report supporting materials for the first deliverables and unique .dat files. *See* ORCLX-MAN-000055 and ORCLX-MAN-000071 (counting this .dat file in the analysis under MD5 hash value

Additionally, for “Synch-up Bundles,” which the Mandiant Report intended to remove according to Section 2, “. . . in an effort to avoid redundant analysis. . . Mandiant would have already performed analysis on the fixes contained in Synch Up Bundles and Mandiant’s intent was to perform analysis only on Fix Ids that included new development.”<sup>182</sup> Not only did the Mandiant Report include the “Synch Up Bundles” by reverting back to the 1773 count, but it also included unintended “Synch Up Bundles” because of the limited way of identifying the bundles.<sup>183</sup>

Therefore, the Fix IDs analyzed in the Mandiant Report are not limited to HRMS as the Mandiant Report suggests,<sup>184</sup> and, furthermore, are not limited to HRMS payroll only as suggested by Dr. Levy in his report.<sup>185</sup>

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b8733e6c1bc8f55fd1ebe15ddaefa0c4). Likewise, Master Fix ID 0916047804 is a record for a FDM payables fix. *See* TN-OR04446719, TN (Hard Drive).75 at Enterprise View 4. Master Fixes\4. By Fix ID/Select 0916047804. The client specific fix associated with this Master Fix ID contained a .sqc file (Apy8055.sqc). TN-OR04497668, TN (Hard Drive).78 at Mail03\ClientFix\0916047804\BSC-TN-0916047804\ BSC-TN-0916047804.zip. Again, the Mandiant Report includes this .sqc file in the supporting materials for first deliverables. *See* ORCLX-MAN-000055 (counting this .sqc file in the analysis under MD5 hash value bd2804946b4ae6200dbae0449821d9c3). Additionally, Master Fix ID 1027043335 is also an FDM fix record. *See* TN-OR04446719, TN (Hard Drive).75 at Enterprise View 4. Master Fixes\4. By Fix ID/Select 1027043335. The client specific fix associated with this Master Fix ID contained a .dat file (prj1027043335\_tn.dat). TN-OR04497668, TN (Hard Drive).78 at Mail03\ClientFix\1027043335\MOA-TN-1027043335\ MOA-TN-1027043335.zip. And again, the Mandiant Report includes this .dat file in the supporting materials for first deliverables and unique .dat files. *See* ORCLX-MAN-000055 and ORCLX-MAN-000071 (counting this .dat file in the analysis under MD5 hash value c96c537f7ebaeb854e41a30039727c2d). By including these, and other, Financials fixes in the “Files Associated with First Deliverable” and “Unique DAT and DMS Files Associate with First Deliverable” spreadsheets, all measures where the Mandiant Report relies upon these two spreadsheets are, therefore, misleading. *See, e.g.*, Mandiant Appendices, Appendix K, Section 4, Measure 102, 104, 106, 107, 108, 111, etc. (relying on either ORCLX-MAN-000055 or ORCLX-MAN-000071).

<sup>182</sup> Mandiant Appendices, Appendix K, Section 2, p. 91.

<sup>183</sup> In some instances, TomorrowNow did not specifically label a “Synch Up Bundle” as such in the name of the Master Fix ID record corresponding to a particular instance or customer. One example of this is found by looking in TN-OR04446719, TN (Hard Drive).75 at Enterprise View 1. Support\1. All/Select By Customer/Select BILLit Accounting and Information/Select HRMS at the Engagement section comments and emails, which detail that on November 21, 2005 and November 22, 2005 TomorrowNow provided BILLit 12 retrofit fixes that dated back to 2003 even though BILLit did not begin receiving support until February 2005. Moreover, see TN-OR04497668, TN (Hard Drive).78 at Mail03\ClientFix\ 2003C-751C\TPA-TN-2003C-751C noting that this 2003 retrofit fix was not delivered to BILLit until November 21, 2005. Because the Mandiant Report had previously included the references to this Fix ID when it was first delivered, this is exactly the type of references that the Mandiant Report claims would be “redundant.”

<sup>184</sup> Mandiant Appendices, Appendix K, Section 3 and Section 4.

### 11.3.1.2 MD5 hash value comparison is misleading

Another example can be found in the Mandiant Report's use of MD5 hash values. The Mandiant Report correctly asserts that two files most likely contain the same content if a MD5 calculation algorithm applied to the contents yields the same MD5 hash value.<sup>186</sup> However, that does not mean that the presence of the two files on TomorrowNow's servers is the result of copying one file on the TomorrowNow server to the same or another TomorrowNow server, or that the presence of two files on the same server with the same hash file is the result of copying one of the files. This stems from the hash value calculation ignoring "the file's name, date of creation and other metadata, and is calculated solely from the file's contents."<sup>187</sup> The Mandiant Report incorrectly concludes that all files with same MD5 hash value calculated on the content were identical copies. Therefore, any measure based solely on MD5 hash analysis is suspect.

### 11.3.1.3 Determination of First Deliverable is misleading

Section 3 of Appendix K provides some of the details of a key statistic that is used throughout almost all of the "measures" called the First Deliverable. It is from this First Deliverable that most of the "measures" are derived. The concept, as defined in the Mandiant Report is misleading because it is not counting the numbers of actual files developed, tested, or delivered to customers, but instead is counting references to a specific Fix ID.<sup>188</sup> As the Mandiant Report openly admits, a single file could reference as many as ten Fix IDs.<sup>189</sup> The count of the "HRMS Fix Population" is approximately ten times greater (525,161)<sup>190</sup> than the

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<sup>185</sup> Levy Report, p. 7 ("... to design a statistically valid sample of SAP TN's PeopleSoft HRMS payroll tax and regulatory Updates...").

<sup>186</sup> Mandiant Report, ¶ 303.

<sup>187</sup> Mandiant Report, ¶ 303.

<sup>188</sup> Mandiant Appendices, Appendix K, Section 3, p. 92.

<sup>189</sup> Mandiant Appendices, Appendix K, Section 3, p. 92.

<sup>190</sup> ORCLX-MAN-000054.

number of actual files the Mandiant Report identifies as *potentially* being delivered to TomorrowNow customers (52,651).<sup>191</sup>

The Mandiant Report does make an attempt to eliminate some of the redundancy by mainly analyzing what the Mandiant Report terms “First Deliverables.”<sup>192</sup> The First Deliverables can be identified by looking at ORCLX-MAN-000055 and 71. Because of the Fix ID over inclusion issue identified above, and because the Mandiant Report is not focused on the actual files, all of the measures dependent on the information in these spreadsheets are misleading and/or potentially elevated.<sup>193</sup>

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<sup>191</sup> See Mandiant Report, Appendix B, Section 5 and ORCLX-MAN-000058.

<sup>192</sup> The Mandiant Report’s attempt to reduce the 525,161 references to Fix IDs was apparently based on zip files’ last written dates. A “last written date” is shown in the spreadsheet referenced in the Appendices titled “Each Delivered File Mapped To Fix IDs Referenced”(ORCLX-MAN-000054). However, it is unclear if the “last written date” contained in this spreadsheet is the “last written date” used in the analysis in the Mandiant Report. In Step 6 of the methodology listed in Appendix K, Section 3, the Mandiant Report asserts that “Mandiant ordered the Fix ID references contained within the file from oldest to most recent. Mandiant made the assumption that the ZIP file’s last written timestamp was an approximate data in which the SAP TN customer received the file.” The Mandiant Report does not provide the results of this intermediate step and so I cannot fully analyze this procedure for filtering files.

<sup>193</sup> While not an exhaustive list, measures 102, 104, 105, 106, 107, 108 and 111 all directly rely upon the data and Fix IDs found in ORCLX-MAN-000055 or ORCLX-MAN-000071. See, e.g., Mandiant Appendices, Appendix K, Section 4, Measure 102, 104, 105 106, 107, 108, and 111. For example, the Mandiant Report states that Measure 102 is the “recorded number of Oracle software releases and versions SAP TN contractually supported for the customers that received the Fix ID.” See Mandiant Appendices, Appendix K, Section 4, Measure 102. To determine this final count, the Mandiant Report “identified all SAP TN customers that received the Fix ID and the date which the customers likely received the Fix ID by reviewing eAppendix – ‘ORCLX-MAN-000055.’” *Id.* As another example, the Mandiant Report states that Measure 104 is the recorded “number of unique File-based Objects (CBL, SQR, or SQC files) associated with the first deliverable of any Fix ID.” *Id.* at Measure 104. To determine this number, “Mandiant reviewed the files recorded in eAppendix – ‘ORCLX-MAN-000055’ and identified the unique File-based objects and their corresponding MD5 file hashes.” *Id.* As another example, the Mandiant Report states that Measure 108 is “the number of copies of the Files Associated with First Deliverable throughout all the Delivered Updates and Fixes.” *Id.* at Measure 108. To determine this number, “Mandiant identified all first deliverable MD5 file hashes by reviewing eAppendix – ‘ORCLX-MAN-000055’ and eAppendix – ‘ORCLX-MAN-000071.’” *Id.* Additionally some measures, while not expressly mentioning ORCLX-MAN-000055 or ORCLX-MAN-000071, are still dependant on them based on how they are constructed (i.e., relying on a measure that was itself derived from ORCLX-MAN-000055 or ORCLX-MAN-000071). For example, the Mandiant Report states that Measure 133 is “the total number of copies of ‘.SQR’, ‘.SQC’, ‘.CBL’, ‘.DAT’, and ‘.DMS’ files associated with ‘first deliverable’ throughout the following data sources...Delivered Updates and Fixes (Measure 108). . . .” *Id.* at Measure 133.

11.3.1.4 The Mandiant Report relies on data provided by Oracle and produced without explanation

Several of the measures in the Mandiant Report rely on data provided by Oracle, including, but not limited to, all measures relying on ORCLX-MAN-000063, 64, 212, and 216.<sup>194</sup> There is no explanation or description of how any of the data provided by Oracle was collected or analyzed. Although the Mandiant Report notes in some measures that a “QC” process was performed by Mandiant, there is no audit trail or report of the “QC” process findings. Therefore, I cannot fully evaluate any of the measures dependent on this data. Moreover, it is unclear why Mandiant would rely on this data without further explanations.

11.4 Comparison of PeopleSoft Delivered Updates & Fixes to Registered Works

The Mandiant Report contains a comparison of TomorrowNow’s Delivered Updates and Fixes for PeopleSoft customers (DUF) to Oracle’s Copyright registrations:

Mandiant performed a file-by-file comparison of the SAP TN PeopleSoft Delivered Updates and Fixes File-based Objects to the Registered Works Registered Works)[sic]. The objective was to determine how much copyrighted Oracle material was included in the SAP TN Delivered Updates and Fixes. These comparisons did not include JD Edwards or Siebel products, and only considered the File-based Objects represented in Table 21.<sup>195</sup>

There are several problems with this comparison.

11.4.1. The Mandiant Report does not evaluate whether individual fixes contain any creative or Protected Expression

A problem with the comparison between the DUF and Oracle’s Registered Works is the lack of analysis of Oracle’s Registered Works with respect to identification of the Protected Expression that Oracle is asserting has been infringed by TomorrowNow. As Oracle’s attorneys

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<sup>194</sup> Mandiant Appendices, Appendix K, Section 4, p. 95.

<sup>195</sup> See Mandiant Appendices, Appendix G, p. 42.

assert in the Complaint<sup>196</sup> filed in this matter, the basis for this lawsuit is an accusation of Copyright infringement. This lack of analysis is suspect for the reasons discussed at length above. Namely, the Mandiant Report simply assumes, without any content review or analysis, Protected Expression.

The lack of analysis in the Mandiant Report is particularly troubling with respect to the broad registrations put at issue by Oracle, i.e. where the Registered Work is an entire release and product line (e.g. PeopleSoft HRMS 8.3). The Mandiant Report's failure to undertake an analysis that shows what specific content in the files contained in the Registered Work contain Protected Expression is even more concerning here where, even if there is a match between a single file in the DUF and a single file in the Registered Work, there is no identification in the Mandiant Report that the single file in the DUF contains Protected Expression. Such an analysis is important where many of the files in both the DUF and the Registered Works relate solely to government-compelled regulations.

11.4.2. The Mandiant Report does not contain an analysis of whether any particular object is any more than a *de minimis* portion of a Registered Work

Further, I am unaware of any comparison between TomorrowNow's DUF and Oracle's Registered Works that provides any data that shows how any file allegedly contains any more than a *de minimis* portion of any of the Registered Works. For example, for the PeopleSoft HRMS 8.8 release, one CBL file in a fix is one file among 3,380 CBL, SQC, SQR, DMS, RPT, MDL, and SQL files in an installed version of Registered Work TX-6-093-947.<sup>197</sup> If only evaluating one CBL file, then this is one file out of 761 files, all of which may contain numerous

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<sup>196</sup> FOURTH AMENDED COMPLAINT FOR DAMAGES AND INJUNCTIVE RELIEF FOR: (1) COPYRIGHT INFRINGEMENT; [...], dated August 18, 2009.

<sup>197</sup> See ORCLX-PIN-000064.

lines of code.<sup>198</sup> If that file is one of the artifacts the Mandiant Report claims matches the Registered Work, I would have expected the Mandiant Report to provide analysis to show that this file is something more than a *de minimis* portion of the Registered Work.

#### 11.5 The Mandiant Report contains only a limited analysis of JDE World fixes

The Mandiant Report only presents a limited analysis regarding one JDE World SAS fix ID. The analysis only pertains to A7.3 and ignores facts presented in the case. The Mandiant Report claims that “it is my opinion that SAP TN developed its changes in KNW2006 and then copied them out to the other code libraries in the sample.”<sup>199</sup> This assertion does not address or consider evidence presented as to how such a “fix” for World A7.3 customers was developed.<sup>200</sup> Although there may have been similar changes made for multiple JDE customers, this is not determinative of copying or any other alleged activity.<sup>201</sup>

For example, thirteen pages of Interrogatory 14 describe the actions taken to create fix related materials for a similar 1099 Year End Update for A7.3. If the description contained in Interrogatory 14 is accurate, then the Mandiant Report’s conclusion of copying is not supported.

##### 11.5.1. There is no code comparison between the JDE World fix files and the Registered Works

Unlike the PeopleSoft code compare analysis discussed above, the Mandiant Report does not provide any code line comparison between any TomorrowNow JDE World fix files and files in Oracle’s JDE World Registered Works. The Mandiant Report only opines generally that

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<sup>198</sup> *Id.*

<sup>199</sup> Mandiant Report, ¶ 367.

<sup>200</sup> *See* Defendant TomorrowNow, Inc.’s Second Amended and Supplemental Response to Plaintiff Oracle USA’s Second Set of Interrogatories, No. 14 at 106-118 and 144-145; April 10, 2009 Deposition of Patti VonFeldt, at 59:20-60:13.

<sup>201</sup> I note that the Mandiant Report makes clear that Kevin Mandia did not (1) attend the inspection of the AS/400 machine in Bryan, Texas, or (2) see or review the restored files from the AS/400 before these files were deleted by Oracle. *See* December 1, 2009 Deposition of Greg Story, at 16:14-20:6 and 49:6-57:1; *see also* Mandiant Report, ¶ 363. Therefore, Mandia has no knowledge beyond what Oracle or Mandiant employee’s reported to him.

“each of these code libraries contains a copy of a substantial portion of Oracle code from JD Edwards World A7.3.”<sup>202</sup> The Mandiant Report fails to do any substantive analysis to tie the code libraries to actual Registered Works and fails to show that any of the code libraries allegedly contain the Protected Expression in the Registered Works that Oracle is asserting has been infringed by TomorrowNow. Again, this is particularly important where the files at issue here relate to a government-compelled 1099 change.<sup>203</sup>

11.6 The Mandiant Report does not analyze any material delivered to, or created for, Siebel, JDE OneWorld, or World A8.1 and A9.1 customers in Conclusion 3

The findings in Conclusion 3 in the Mandiant Report do not pertain to any material delivered to, or created for, JDE OneWorld customers on any release, World customers on release A8.1 and A9.1 and Siebel customers on any release.

11.7 Customers not implicated by allegations in Conclusion 3

Appendix 4 to this Report documents the customers who did not receive any fixes or updates for the product lines focused on in Conclusion 3 of the Mandiant Report. The counts are based on SAS records and the materials contained within the Delivered Updates & Fixes.<sup>204</sup> As noted above, in Conclusion 3 the Mandiant Report makes no allegations regarding fixes for JDE One World or Siebel product suites and, thus, all of these customers are included in the table below. The following table provides a summary of these customers:

<i>Product Family</i>	<i>Customer Count</i>
PeopleSoft	45

<sup>202</sup> Mandiant Report, ¶ 368.

<sup>203</sup> In addition, the Mandiant Report does not address whether the code libraries at issue are anything more than a *de minimis* portion of the Registered Works.

<sup>204</sup> See Appendix 4, which contains the “Non-Accused Conduct” spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

JDE	100
Siebel	16
Total	154 <sup>205</sup>

## 12. Conclusion 4

12.1 The Mandiant Report does not do any substantive or detailed analysis regarding alleged post-litigation conduct

The Mandiant Report includes broad assertions relating to conduct that is alleged to have continued after the lawsuit. The Mandiant Report does not include any substantive analysis regarding these assertions. Because the Mandiant Report is simply relying on and carrying forward analysis from the prior sections, for all the reasons previously stated, this analysis suffers from the same issues and flaws noted above.

## 13. Summary

13.1 The conclusions in the Mandiant Report are not supported by its analysis

While stating conclusions that are ostensibly applicable to all of TomorrowNow's products and all of TomorrowNow's services, as noted throughout this Report, the Mandiant Report's analysis is limited in scope of the services and products analyzed. The Mandiant Report mainly relates to TomorrowNow's services for PeopleSoft customers. This point is evident in the "Summary of Conclusions" at the beginning of the Mandiant Report and the final "Summary" at the end, where the Mandiant Report provides overbroad conclusions based on numerous assertions which lack proper support.

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<sup>205</sup> Because of overlap between customers and product families, the total number is not reflective of simply adding the numbers for each product family (161). Here, Alberto-Culver, MKS and CSBP Limited were only counted once. And, Praxair, National Food Services Limited, Harley Davidson, Inc., and BASF AG were removed from the total because they were identified as potentially receiving a PeopleSoft HRMS related fix.

Specifically, the Mandiant Report Summary: (1) implies that Mandia and/or Mandiant compared all materials on TomorrowNow's servers to Oracle's Registered Works; (2) opines that all of the Registered Works contain Protected Expression simply by assuming that Protected Expression exists; and (3) claims that TomorrowNow created thousands of fixes that utilized Oracle's Registered Works.

As this Report shows, the Mandiant Report does not actually perform a sufficient comparison of the materials existing on TomorrowNow's servers to Oracle's Registered Works. The limited comparison done relates mainly to PeopleSoft HRMS and covers only a portion of the 120 Registered Works at issue.

Also, as this Report shows, the Mandiant Report provides no independent analysis of Protected Expression in any of the Registered Works Oracle put at issue in this case. The Mandiant Report is devoid of any analysis of whether any materials alleged to have been copied by TomorrowNow contained any of the alleged Protected Expression in the Registered Works.

Additionally, the Mandiant Report's analysis of TomorrowNow's fixes is almost entirely limited to PeopleSoft HRMS, ignores whether customers obtained any objects that they themselves were not licensed for, and fails to analyze any license agreements.<sup>206</sup> Other than a cursory examination of 5 fixes, all of the Mandiant Report's analysis regarding fixes is based upon synthesized statistics from databases for which details were not provided in the analysis.

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<sup>206</sup> As noted in the Report, all of the Mandiant Report's conclusions and assertions are derived without reviewing any customer license agreements.

### 13.2 Summary of customers not implicated at all by allegations in the Mandiant Report

Moreover, the Mandiant Report disregards the customers that were not implicated by the accused conduct identified in the Mandiant Report. The list below identifies all 51 of the customers who are not implicated by the direct allegations in the Mandiant Report<sup>207</sup>:

<i>Number</i>	<i>Customer Name</i>
1	ACN Europe B.V.
2	Al Nisr Publishing LLC
3	Alberto-Culver
4	Asia Pacific Breweries
5	Atlantic Container Store
6	Atlantic Marine, Inc.
7	Autobuses de la Piedad S.A. de C.V.
8	B.M. Nagano Pte. Ltd.
9	BBS Electronics Pte Ltd
10	Beacon Industrial Group
11	Brain LAB AG
12	By Referral Only
13	City of Windsor <sup>208</sup>
14	Contico Corp.
15	Coors Brewers Limited

<sup>207</sup> See Appendix 4, which contains the “Non-Accused Conduct” spreadsheet and is bates labeled SAP-GRA-000001 and Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>208</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<i>Number</i>	<i>Customer Name</i>
16	Drexel Heritage, Inc.
17	Fabrica Nacional de Lija S.A. de C.V.
18	Forth Ports PLC
19	FP Bois
20	GFM Textile S.A. de C.V.
21	Great Western Malting
22	Hager Electro S.A.S.
23	JALPAK International America, Inc.
24	Keppel Shipyard, Ltd (Singapore)
25	Liberata UK Ltd.
26	Madix, Inc.
27	Magee Clothing
28	Neaton Auto Products Mfg., Inc.
29	New Era Cap Co.
30	Organon Mexicana, S.A. de C.V.
31	Petroleum Geo-Services, Inc.
32	Powerway, Inc.
33	Pretty Products, Inc.
34	Prime Group Realty Trust
35	Schaffner Holding AG
36	SCSG Mgmt. Co.
37	Textile Management Associates

<i>Number</i>	<i>Customer Name</i>
38	The Hong Kong and Shanghai Bank <sup>209</sup>
39	Toms Snacks Company
40	Tripoint Corporation Pty Ltd <sup>210</sup>
41	UPM-Kymmene UK (Shotton)
42	US Oncology <sup>211</sup>
43	UT MD Anderson Cancer Center <sup>212</sup>
44	Valero Energy <sup>213</sup>
45	Van Hessen BV
46	Watson Laboratories, Inc.
47	Wesfarmers Federation Insurance
48	Westcode Semiconductors Limited
49	Wheeler's Inc.
50	World Kitchen (Asia Pacific) Pte Ltd
51	ZMC Technologies Pte Ltd

<sup>209</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>210</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>211</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>212</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.

<sup>213</sup> This is a consulting only customer. See Appendix 5, which contains the “Non-Accused Conduct” Methodology Document and is bates labeled SAP-GRA-000002-13.