UNITED STATES DISTRICT COURT EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

BMC SOFTWARE, INC.,

Plaintiff,

CIVIL ACTION NO. 2:14-CV-903-JRG Jury Trial Demanded

V.

SERVICENOW, INC.,

Defendant.

DECLARATION OF DR. BEN BEDERSON IN SUPPORT OF BMC'S OPENING CLAIM CONSTRUCTION BRIEF

(5,978,594; 6,895,586; and 8,646,093 Patents)



BMC EXHIBIT 2002 ServiceNow v. BMC

IPR2015-01555

- 1. I have been retained on behalf of plaintiff BMC Software, Inc. ("BMC") to provide expert opinions in connection with this case.
- 2. I obtained a Ph.D. in Computer Science from New York University in 1992. Prior to that, I obtained my M.S. in Computer Science from New York University in 1989, and received my B.S. in Computer Science from Rensselaer Polytechnic Institute in 1986, with an undergraduate minor in Electrical Engineering. I received the Janet Fabri Memorial Award for Outstanding Doctoral Dissertation in connection with my Ph.D. work.
- 3. In addition to my education, I have over 25 years of experience studying, designing, and working in the field of computer science. I have built numerous software systems and developed mobile and Internet software products using a number of programming languages and tools, including Java, C++ and database languages such as MySQL.
- 4. As indicated in my CV, which is attached as Exhibit 1, I have been a designer of computer applications and a professor and researcher in the area of advanced computer studies for more than 25 years. For example, I have designed, programmed, and publicly deployed dozens of software products that have cumulatively been used by millions of users. My work is also described in numerous patents on which I am a named inventor.
- 5. My work also has been published extensively in more than 140 technical publications, and I have given about 100 invited talks, including seven keynote lectures. I have won a number of awards including the Brian Shackel Award for "outstanding contribution with international impact in the field of HCI" in 2007, and the Social Impact Award in 2010 from Association for Computing Machinery's ("ACM") Special Interest Group on Computer Human Interaction ("SIGCHI"). ACM is the primary international professional community of computer scientists, and SIGCHI is the primary international professional HCI community. I have been



honored by both professional organizations. I am an "ACM Distinguished Scientist," which recognizes those ACM members with at least 15 years of professional experience and 5 years of continuous Professional Membership who have achieved significant accomplishments or have made a significant impact on the computing field. I am a member of the "CHI Academy," which is an honorary group of individuals who have made substantial contributions to the field of human-computer interaction. These organizations are the principal leaders of the field, whose efforts have shaped the disciplines and/or industry, and led the research and/or innovation in human-computer interaction. The criteria for election to the CHI Academy are: (1) cumulative contributions to the field; (2) impact on the field through development of new research directions and/or innovations; and (3) influence on the work of others.

- 6. I have appeared on radio shows numerous times to discuss issues relating to software design and peoples' use and frustration with common technologies, web sites, and mobile devices. My work has been discussed and I have been quoted by mainstream media around the world over 120 times, including by the New York Times, the Wall Street Journal, the Washington Post, Newsweek, the Seattle Post-Intelligencer, the Independent, Le Monde, NPR's All Things Considered, New Scientist Magazine, and MIT's Technology Review.
 - 7. I am the named inventor of 8 U.S. patents, listed below:
 - SanGiovanni, J., Bederson, B. (2014). Systems, Methods, and Computer
 Program Products Displaying Interactive Elements on a Canvas. U.S. Patent
 No. 8,819,570.
 - Pahud, M., Murillo, O. E., Karlson, A. K., & Bederson, B. B. (2012).
 Monitoring Pointer Trajectory and Modifying Display Interface. U.S. Patent
 No. 8,261,211.



- Good, L.E., Bederson, B. B., & Stefik, M.J. (2010). Methods and Systems for Supporting Presentation Tools Using Zoomable User Interfaces. U.S. Patent No. 7,707,503.
- Bederson, B. B., Good, L. E., & Stefik, M.J. (2010). Methods and Systems for Incrementally Changing Text Representation. U.S. Patent No. 7,650,562.
- Bederson, B. B., Good, L. E., & Stefik, M. J. (2009). Methods and Systems for Incrementally Changing Text Representation. U.S. Patent No. 7,549,114.
- Wallace, R. S., Bederson, B. B., & Schwartz, E. L. (1997). TV Picture
 Compression and Expansion. U.S. Patent No. 5,642,167.
- Bederson, B. B., Wallace, R. S., & Schwartz, E. L. (1993). Two-Dimensional
 Pointing Motor. U.S. Patent No. 5,204,573.
- Wallace, R. S., Bederson, B. B., & Schwartz, E. L. 1992). Telephone Line
 Picture Transmission. U.S. Patent No. 5,175,617.
- 8. I have reviewed the '594, '586, and '093 patents and their prosecution histories, and their subject matter is within the scope of my education and experience.

'594 Patent

"Computer System"

Claim Term	ВМС	ServiceNow
"computer system"	plain meaning	a computer equipped with a CPU,
		conventional input equipment such as a
		keyboard, conventional output
		equipment such as a display monitor, a
		conventional data storage device such as
		a disk or tape drive or CD ROM drive,
		some sort of random access memory



("RAM"), and some sort of
conventional network communication
hardware such as an ETHERNET
interface unit for physically coupling
the computer system to the network,
with an installed agent software

- 9. ServiceNow proposes that the claim term "computer system" be construed to mean "a computer equipped with a CPU, conventional input equipment such as a keyboard, conventional output equipment such as a display monitor, a conventional data storage device such as a disk or tape drive or CD ROM drive, some sort of random access memory ("RAM"), and some sort of conventional network communication hardware such as an ETHERNET interface unit for physically coupling the computer system to the network, with an installed agent software." I disagree with ServiceNow's proposed construction.
- 10. Based on my review and analysis of the '594 patent and prosecution history, the term "computer system" was not redefined by the patentee here to mean something other than its ordinary meaning. The specification describes a "computer system" in a manner consistent with those words' plain meaning. For example, the specification states that computer systems are simply conventional computers: "The hardware present in each of the computer systems may be of any conventional type such is typically found on server computers in a client/server network environment." '594, 3:14-29. This understanding of "computer system" is consistent with how those words would be understood by a person of ordinary skill in the art. Indeed, the Microsoft Computer Dictionary defines "computer system" to simply mean a "configuration that includes all functional components of a computer and its associated hardware." (Ex. 2 at 121).
- 11. ServiceNow's construction appears to be derived from the '594 patent's description of a preferred embodiment. However, the specification's description merely attempts



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