Appeal No. 2011-1467

IN THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

BANCORP SERVICES, L.L.C.

Plaintiff-Appellant,

v.

SUN LIFE ASSURANCE COMPANY OF CANADA (U.S.),

Defendant-Appellee,

and

ANALECT L.L.C.

Defendant.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
IN CASE NO. 00-CV-1073
JUDGE CAROL E. JACKSON

COMBINED PETITION FOR PANEL REHEARING AND REHEARING *EN BANC* OF PLAINTIFF-APPELLANT BANCORP SERVICES, LLC [NON-CONFIDENTIAL]

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CERTIFICATE OF INTEREST

Counsel for Plaintiff-Appellant Bancorp Services, LLC certifies that

1. The full name of every party or amicus represented by me is: Bancorp Services, LLC.

2. The name of the real party in interest represented by me is: Bancorp Services, LLC.

3. All party corporations and any publicly held companies that own 10 percent or more of the stock of the party represented by me are: Bancorp Holdings, Inc., a Subchapter S Corporation, owns more than 10 percent of Bancorp Services, LLC.

4. The names of all law firms and the partners or associates that appeared for the party now represented by me in the trial court or agency or are expected to appear in this court are: Charles K. Verhoeven; David A. Perlson; Ian S. Shelton; Patrick D. Collins; Patrick M. Shields; William A. Moorehead; Michelle L. Gravel; Rhiana A. Luaders; Charles A. Weiss; Douglas W. King; Quinn Emanuel Urquhart & Sullivan, LLP; Bryan Cave, LLP.

DATED: August 27, 2012

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NATURE OF REDACTED CONFIDENTIAL MATERIAL

Confidential material subject to protective orders has been redacted from the non-confidential version of the combined petition for panel rehearing and rehearing *en banc*. The redacted portion is a statement by an expert retained by Hartford Life Insurance Company in a separate case entitled *Bancorp Services, LLC v. Hartford Life Insurance Company*, No. 4:00-CV-0070 (CEJ) (E.D. Mo.). The redacted portion consists of Hartford's confidential material from its expert's report that was produced to Bancorp and Sun Life subject to protective orders in this case.

STATEMENT OF COUNSEL

Based on my professional judgment, I believe the Panel's published decision in *Bancorp Servs., LLC v. Sun Life Assurance Co. of Canada (U.S.)*, --- F.3d ----, 2012 WL 30371716 (Fed. Cir. July 26, 2012) (Lourie, J., joined by Prost, J. and Wallach, J.), conflicts with the following precedents of this Court and is contrary to the following precedents of the Supreme Court of the United States: *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341 (Fed. Cir. 2012) (*CLS*), *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010) (*RCT*), and *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

DATED: August 27, 2012

_____

David A. Perlson
Attorney for Plaintiff-Appellant Bancorp Services, LLC

PRELIMINARY STATEMENT

In finding Bancorp's specially-programmed computer system, media, and process claims unpatentable, the Panel decision strips away patent protection for a wide swath of novel advances in computer technology—undermining a critical component of our nation's 21st Century economy and a driver of innovation in every area of science, technology, and business endeavor. This is bad policy that vastly expands a judicially-created exception to the plain language of § 101. It is also bad law because the Panel's decision makes it impossible for lawyers, businesses, inventors, and the public to predict what is patentable. Indeed, the

Panel's decision conflicts with a case decided just two weeks earlier—*CLS*—which applied a completely different, deferential patentability standard to computerized inventions, engaged in a different, claim-focused analysis, and reached a different conclusion regarding the patentability of system, media, and process claims that contain elements similar to Bancorp's claims. To further exacerbate the confusion, Bancorp's claims are more specific than the claims found patentable in *CLS*.

The Panel reached this divergent and unsupportable conclusion by ignoring specific claim limitations and constructions in evaluating patentability, not applying the "manifestly abstract" standard—adopted in *RCT* and *CLS*—to reflect the clear and convincing burden of proof shouldered by a party challenging validity, and uncritically assuming complete preemption of a purported abstract idea without any evidence, much less clear and convincing evidence. Panel rehearing or rehearing *en banc* is appropriate.

FACTUAL STATEMENT

A. The '792 and '037 Patents

Patent No. 5,926,792 ('792 Patent) and Patent No. 7,249,037 ('037 Patent) describe novel computer systems, computer-readable media, and computerized processes for tracking, reconciling, and administering Corporate- or Bank-Owned Life Insurance (BOLI) products utilizing stable value protection (SVP). (A72, 1:7-

14.)[1] Bancorp's patents disclose computer systems, media, and processes to "track, reconcile and administer life insurance policies in Stable Value Protected funds which smooth the return associated with the underlying investments and which amortize the initial fees associated with each premium payment over several years." (A73, 4:60-65.) As the Panel held, and the claims and specification state, a "computer system" performs the claimed inventions. (A74, 5:31-36.) The specification further discloses complex processes (expressly reliant on computer hardware) that occur "frequently," which could mean daily or even on a real-time basis as market data becomes available. (A77, 12:61-65.)

Contrary to the Panel's conclusion, Bancorp does not claim the idea of SVP BOLI (Grey Br. 15-16), any mathematical formula (*id.* at 14-15), or the idea of SVP BOLI administration in some undefined manner (*id.* at 24-27).

Rather, the "automated system[s]" and methods claimed in the '792 and '037 Patents "overcome[s] the disadvantages of the prior art systems" by "providing a computer system for managing an insurance product purchase" of SVP BOLI—an insurance product that did not exist as of Bancorp's priority date, as Sun Life admits (Grey Br. 18-19). (A72, 1:7-10; A73, 4:16-17; A74, 5:31-52.) Bancorp developed these novel computer administration systems and methods to administer SVP BOLI—including through specially-programmed credit and

[1] Bancorp's petition cites to the common specification of the '037 Patent.

investment calculators that support the smoothing feature of the policy. One of these elements, "surrender value protected investment credits," was construed in *MetLife* to refer to a functionality different than the construction advocated by Bancorp, reinforcing the circumscribed nature of the claimed administration system. *Metropolitan Life Ins. v. Bancorp Servs., LLC*, 527 F.3d 1330, 135-36 (Fed. Cir. 2008) (*MetLife*).

Due to the dynamic nature of the inventions—which requires precise and repetitive calculation, tracking, and storing of identified values over time (*e.g.*, fees, SVP credits, investment value, value of the underlying securities, book value, policy value, etc.)—computers specially-programmed to perform the claimed steps play a significant part in permitting the methods to be performed. The claimed steps are not, however, limited to "calculating"—a term used in only a few claim elements. Other elements—as the specification explains—include *processing* data such as personal and census data, *generating* an insurance policy, *receiving* data such as the value of the underlying securities and the targeted return, *comparing* and *reconciling* values, *reporting* discrepancies, *digitally storing* all this information, and other "controlled interaction" with members of the management group via a computer network. (A77, 12:45-60, 13:23-30, 13:31-49.) For example, the "investment calculator" can calculate "an independent estimate of the value of the securities," "compare[] it with the imported value," and then report

"[d]iscrepancies" to the policy owner. (A78, 13:36-38, fig. 12, step 1216.) That is why certain claim elements specifically use the term "calculating" while others use different terms such as "generating," "storing," or "receiving."

B. The Panel Decision

The Panel first addressed claim construction, agreeing with Bancorp that the plain language of the claims and specification required "that the asserted system claims require 'one or more computers.'" *Sun Life*, 2012 WL 3037176, at *6. The Panel found that Bancorp's computer-readable medium claims require tangible media such as compact discs. *Id.* at *7. The Panel found that Bancorp's dependent process claims require computer implementation too. *Id.*

As to patentability under § 101, the Panel purported to distinguish *CLS* in one paragraph, concluding that the inventions in *CLS* were a "very specific application" of an "inventive concept," in which computer limitations played a "significant part." *Id.* at *12. However, the Panel did not engage in the same claim-focused analysis or apply the same patentability principles as *CLS*.

Further, contrary to the Panel's conclusion, Bancorp did not limit its appeal "to the contention that because its claims are limited to being performed on a computer, they cannot claim only an abstract idea." *Id.* Rather, Bancorp argued that its system was patentable because its novel computerized administration steps represented improvements to existing technologies in the marketplace and required

complex programming to execute the computational and non-computational functionality described in the claim language and specification. Blue Br. 38-44. By stripping away the specific limitations of Bancorp's inventions, the Panel concluded that Bancorp claimed "the unpatentable abstract concept of managing a stable value protected life insurance policy." *Id.* at *12. The Panel's analysis thus reduced Bancorp's claims to "managing a stable value protected life insurance policy by performing calculations and manipulating the results." *Id.*

The Panel further found "no material difference between the claims invalidated in *Bilski* and those at issue here." *Id.* at *10. But the Panel did not address Bancorp's observation that *Bilski* actually claimed mathematical formulas and unapplied hedging concepts, as opposed to computer systems specially-programmed to perform up to nine particular steps to administer SVP BOLI.

Instead, adopting Sun Life's non-statutory argument that a process is not patentable unless it "improves the functioning of a physical device," (Red Br. 54), the Panel distinguished *RCT* and *SiRF* on the basis that "computer machinery," such as digital image displays or GPS receivers, was not "integral" to Bancorp's inventions. *Id.* at *11 The Panel, however, did not explain why computer machinery was not integral to Bancorp's claimed computer system or address Bancorp's evidence that it was. Blue Br. 45-48. Nor did the Panel explain why *CLS* was not distinguishable on the same basis or why Bancorp's inventions did

not represent "improvements to computer technologies in the marketplace" related to administration of SVP BOLI in the face of Bancorp's evidence. *Id.*

The Panel also found that Bancorp's claims were unpatentable because "the computer performs more efficiently what could otherwise be accomplished manually." *Id.* Yet the Panel did not explain how this analysis is consistent with *CLS*, which found patentable certain processes that could theoretically be performed manually if stripped of their computer limitations, or with *Bilski*, which rejected such *per se* exclusions as non-statutory.

ARGUMENT

I. THE PANEL SHOULD GRANT REHEARING TO CORRECT ITS MISAPPREHENSION OF THE *CLS* AND *RCT* DECISIONS

RCT and *CLS* were both decided before the present appeal and are entitled to precedential effect to maintain uniformity of the Court's decisions. *Hometown Fin., Inc. v. United States*, 409 F.3d 1360, 1365 (Fed. Cir. 2005).

A. The Panel Overlooked The Similarity Between the *CLS* Claims and Bancorp's Claims

In distinguishing *CLS* in one paragraph, the Panel overlooked that Bancorp's system, media, and dependent process claims share common elements with the *CLS* claims—digital storage, adjustment, and generation—which are identified in color-coded highlighting below.

CLS System (Machine) Claim ('720 Patent, Claim 1)	*Bancorp* System (Machine) Claim ('037 Patent, Claim 68)
1. A data processing system to enable the exchange of an obligation between parties, the system comprising: a data storage unit having stored therein information about a shadow credit record and shadow debit record for a party, independent from a credit record and debit record maintained by an exchange institution; and a computer, coupled to said data storage unit, that is configured to (a) receive a transaction; (b) electronically adjust said shadow credit record and/or said shadow debit record in order to effect an exchange obligation arising from said transaction, allowing only those transactions that do not result in a value of said shadow debit record being less than a value of said shadow credit record; and (c) generate an instruction to said exchange institution at the end of a period of time to adjust said credit record and/or said debit record in accordance with the adjustment of said shadow credit record and/or said shadow debit record, wherein said instruction being an irrevocable, time invariant obligation placed on said exchange institution.	**1**. A life insurance policy management system comprising: a policy generator for generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities of the stable value protected investment; a fee calculator for calculating fees for members of a management group which manage the life insurance policy; a credit calculator for calculating credits for the stable value protected investment of the life insurance policy; an investment calculator for determining an investment value and a value of the underlying securities of the stable value protected investment for the current day; a policy calculator for calculating a policy value and a policy unit value for the current day; digital storage for storing the policy unit value for the current day; and a debitor for removing a value of the fees for members of the management group which manages the life insurance policy. **67**. The system according to claim **1**, further comprising a receiver for receiving a targeted return for an upcoming time period. **68**. The system according to claim **67**, wherein the targeted return is adjusted to amortize at least one initial fee.

Those common elements[2] are also found when comparing the manufacture and process claims.[3] In addition to the common elements, Bancorp's claims contain additional limitations that provide *more detail* than the *CLS* claims about

[2] The dependent claims of the '037 Patent include several adjustment steps, such as adjusting the targeted return to amortize for at least one initial fee (claims 66, 68, 72, 74, 75, 77, 81, 83, 87, 93, 95), and adjusting the investment value to amortize for at least one initial fee (claims 87, 88, 91, 92).

[3] *Compare CLS* Manufacture Claim ('375 Patent, Claim 39), *with Bancorp* Manufacture Claim ('037 Patent, Claim 95) (common elements of storage, adjustment, and generation), *and CLS* Process Claim ('510 Patent, Claim 1) , *with Bancorp* Process Claim ('037 Patent, Claim 60) (same).

how information used by the system is calculated and/or acquired. For example, the *CLS* claim simply states, in red underlining above, that undefined "information about" shadow credit and debit records is somehow "stored." The claim does not explain the manner in which that information is calculated and/or acquired from third parties. 685 F.3d at 1343-44. In contrast, Bancorp's claims actually explain, in blue underlining above, how an SVP policy is managed for the "current day" through the use of various generators, calculators, debitors, receivers, and adjusters that are specially-programmed to perform specific functions, both computational and non-computational, when read in light of the specification. If the less specific *CLS* claims are patentable, then the more specific *Bancorp* claims are surely patentable. Yet the Panel held just the opposite.

B. The Panel Misapprehended the *CLS* and *RCT* Patentability Standard

Given this similarity in the claim language, reconciling the present case with *CLS* will avoid an intra-circuit conflict that would otherwise compel *en banc* review and burden the circuit. In particular, the Panel did not mention, and its holding is inconsistent with, the following standards adopted in *CLS* regarding the patentability of computerized inventions: (1) "[p]atent eligibility must be evaluated based on what the claims recite, not merely on the ideas upon which they are premised"; (2) "the essential concern is not preemption, *per se*, but the extent to which preemption results in the foreclosure of innovation"; and (3) "[u]nless the

single most reasonable understanding is that a claim is directed to nothing more than a fundamental truth or disembodied concept, with no limitations in the claim attaching that idea to a specific application, it is inappropriate to hold that the claim is directed to a patent ineligible 'abstract idea.'" *Id.* at 1351-52.

Applying those general principles, *CLS* found the challenged claims patentable based on (1) computer implementation ("each asserted claim requires computer implementation"); (2) "practical application of a business concept" (shown by the "computer implemented steps" of electronically maintaining shadow credit and debit records, adjusting them, and giving instructions to exchange institutions to reflect those adjustments); and (3) no complete preemption of any abstract idea (because "specific 'shadow' records leave broad room for other methods of using intermediaries to help consummate exchanges . . . and, thus, do not appear to preempt much in the way of innovation.") *Id.* at 1354-56.

Those same three points relied on in *CLS* apply equally to demonstrate the patentability of Bancorp's machine, manufacture, and dependent process claims. As to the first point addressed by *CLS*—"computer implementation"—the Panel acknowledged that Bancorp's asserted claims require it.[4]

[4] Assuming Bancorp's independent process claims are unpatentable because they do not require computer implementation, that finding would not undermine the validity of the dependent process claims that explicitly recite a computer. 35 U.S.C. § 282. On the contrary, it would reinforce the patentability of the

The second point of *CLS*—"practical application of a business concept"—also exists here through the computerized administration of SVP BOLI. There are computer implemented steps of (a) electronically maintaining (through "digital storage") policy information (through the use of specially-programmed "fee calculators," "credit calculators," "investment calculators," "policy calculators," "debitors," and "receivers"); (b) adjusting that information regularly ("for the current day"); and (c) generating output (including "life insurance policies" and information for "policy management").

As to the third point of *CLS*—"preemption of innovation"—neither the Panel nor Sun Life identified any actual evidence that Bancorp's inventions foreclose all possible methods of SVP BOLI administration. *Sun Life*, 2012 WL 3037176, at *12. In fact, the only evidence in the record—from Sun Life's own expert and this Court's prior *MetLife* opinion—establishes just the opposite. Sun Life's expert previously testified that [redacted] showing that Bancorp does not preempt all possible methods of SVP BOLI administration. A997 [redacted] Similarly, this Court previously found an issue of fact as to whether MetLife's system

dependent process claims, which Sun Life has not shown to preempt computerized administration, and which by definition would not preempt manual administration.

infringed. *MetLife*, 527 F.3d at 135-36. Thus, as in *CLS*, the "single most reasonable interpretation" of Bancorp's claims is not that they preempt all innovation in the field. *CLS*, 685 F.3d at 1351-52.

The Panel further erred by adopting the district court's novel patentability test that a process is patentable only if "computer machinery" is "integral to the patent" and the process "improv[es] the functioning of computers." Such analysis resurrects the machine-or-transformation test, is contrary to *CLS*, and contrary the Supreme Court's admonition that the categorical exclusion of business methods from coverage, whether in whole or part, has no support in the statutory language of § 101. *Bilski*, 130 S. Ct. at 3225, 3228-29.

Moreover, the Panel incorrectly concluded that Bancorp's claims were unpatentable because certain limitations implicate mathematics. *Sun Life*, 2012 WL 3037176, at *11. Yet, the "Supreme Court has already made abundantly clear that inventions incorporating and relying" on mathematical processes do not lose eligibility because "several steps of the process [use that] mathematical equation." *RCT*, 627 F.3d at 869. The prohibition on patenting mathematical "algorithms" is limited to disembodied mathematical formulas such as the one in *Benson*, not functional, step-by-step processes such as the ones in *CLS* and the present appeal. Grey Br. 15. In any event, Bancorp's patents do not claim *any* particular

mathematical formulas; they instead cover a series of computerized steps—many of which are not limited to mathematical calculations—for managing SVP BOLI.

Further, in finding that Bancorp's inventions are "a matter of mere mathematical computation," *Sun Life*, 2012 WL 3037176, at *11, the Panel ignored all of the claim elements that are not limited to computation, such as the "generating" and "receiving" steps, and the "investment calculator" and "debitor" elements that import and compare values, verify and report discrepancies, and interact with third parties over a network. Grey Br. 17-18. In *CLS*, this Court relied heavily on such non-computational functionality, fleshed out in the specification, in finding those claims patentable. 685 F.3d at 1355. Here, the Panel ignored Bancorp's non-computational limitations and the specification's functional description of the programming required to perform Bancorp's administration steps. Yet, "[a]ny claim can be stripped down, or simplified, removing all of its concrete limitations, until at its core, something that could be characterized as an abstract idea is revealed." *CLS*, 685 F.3d at 1351.

II. THE FULL COURT SHOULD GRANT *EN BANC* REVIEW

If the panel does not grant rehearing, Bancorp requests *en banc* review to address the conflict with *CLS* in order to maintain uniformity of the Court's decisions. The *en banc* Court can reconcile its past cases in order to avoid confusion and unpredictability. Computer-implemented inventions directed to

specific applications of an inventive concept, as reflected in the *Bancorp*, *CLS*, and *Ultramercial* patents, should be found patent eligible, while computer-implemented inventions that can be performed in any undefined manner and thus completely preempt an abstract idea, as reflected in the *Cybersource* and *Dealertrack* patents, should not. Such a holding will clarify the § 101 jurisprudence that this Court recently characterized as a "swamp." *MySpace*, 672 F.3d at 1262.

Two other *en banc* petitions filed in the past week agree that the Panel's decision is in tension with *CLS*. As stated in the *Ultramercial* petition, "*Bancorp* exacerbates the confusion by appearing to adopt a § 101 analysis right out of Judge Prost's dissent in *CLS Bank*." WildTangent *En Banc* Pet. 4-5 (2010-1544) (8/22/12). And as stated in the *CLS* petition, "[t]he *Bancorp* court attempted to distinguish the holding in this case solely based on how the majority here characterized the claims, not based on any differences in the claim language itself." CLS *En Banc* Pet. 11 (2011-1301) (8/22/12).

En banc review is also warranted because the Panel decision is inconsistent with *Prometheus*, which held that a patentee "must do more than simply state the law of nature while adding the words 'apply it.'" 132 S. Ct. at 1294; *see id.* at 1300 (unpatentable method instructed doctors "to apply the law somehow when treating their patients"). Bancorp's claims do not merely recite the abstract idea of

SVP BOLI administration and say "apply it" in some undefined manner. *Prometheus'* focus on preemption also demonstrates that the Panel erred in treating the theoretical possibility of manual administration (when computer limitations are stripped out) as an indicia of *un*patentability. If a claimed computerized process can also be performed manually, then by definition the computerized process does not wholly preempt any underlying abstract idea. *Prometheus* further explains that preemption refers to claiming an abstract idea applied in some undefined manner, such that all possible methods are preempted. However, the Panel did not identify any evidence of complete preemption, and Bancorp's evidence and the specificity of its claims show the opposite. Invalidity under § 101 must be proven by clear and convincing evidence, as reflected in the "manifestly abstract" standard of *RCT* that Sun Life failed to satisfy and the panel ignored. *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1261 (Fed. Cir. 2012); *RCT*, 627 F.3d at 868.

CONCLUSION

Bancorp's petition should be granted. In the alternative, if the Court is inclined to grant rehearing in *Ultramercial* and/or *CLS*, but not the present case, Bancorp respectfully requests that the Court hold Bancorp's petition in abeyance pending the resolution of panel or *en banc* rehearing in those other cases.

DATED: August 27, 2012

QUINN EMANUEL URQUHART & SULLIVAN, LLP

By_____

David A. Perlson
Attorney for Plaintiff-Appellant Bancorp Services, LLC

ADDENDUM

United States Court of Appeals for the Federal Circuit

BANCORP SERVICES, L.L.C.,
Plaintiff-Appellant,

v.

SUN LIFE ASSURANCE COMPANY OF CANADA (U.S.),
Defendant-Appellee,

AND

ANALECT LLC,
Defendant.

2011-1467

Appeal from the United States District Court for the Eastern District of Missouri in Case No. 00-CV-1073, Judge Carol E. Jackson.

Decided: July 26, 2012

DAVID A. PERLSON, Quinn Emanuel Urquhart & Sullivan, of San Francisco, California, argued for plaintiff-appellant. With him on the brief was CHARLES K. VERHOEVEN; and IAN S. SHELTON, of Los Angeles, California.

MATTHEW B. LOWRIE, Foley & Lardner, LLP, of Boston, Massachusetts, argued for the defendant-appellee. With him on the brief were AARON W. MOORE and KEVIN M. LITTMAN.

Before LOURIE, PROST, and WALLACH, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Bancorp Services, L.L.C. ("Bancorp") appeals from the final decision of the U.S. District Court for the Eastern District of Missouri, which entered summary judgment that the asserted claims of U.S. Patents 5,926,792 and 7,249,037 (the "'792 patent" and "'037 patent") are invalid under 35 U.S.C. § 101. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, No. 4:00-cv-1073 (E.D. Mo. May 25, 2011) (Final Judgment), ECF No. 411. We *affirm*.

BACKGROUND

Bancorp owns the '792 and '037 patents, both entitled "System for Managing a Stable Value Protected Investment Plan." The patents share a specification and the priority date of September 1996. The '792 patent has been the subject of two prior appeals to this court. *See Metro. Life Ins. Co. v. Bancorp Servs., L.L.C.*, 527 F.3d 1330 (Fed. Cir. 2008) (vacating summary judgment of noninfringement); *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367 (Fed. Cir. 2004) (reversing summary judgment of invalidity for indefiniteness).

As explained in our earlier opinions and in the district court's opinion now on appeal in this case, the patents' specification discloses systems and methods for administering and tracking the value of life insurance policies in separate accounts. Separate account policies are issued pursuant to Corporate Owned Life Insurance ("COLI")

and Bank Owned Life Insurance ("BOLI") plans. Under separate account COLI and BOLI plans the policy owner pays an additional premium beyond that required to fund the death benefit, and specifies the types of assets in which the additional value is invested. Banks and corporations use the policies to insure the lives of their employees and as a means of funding their employees' post-retirement benefits on a tax-advantaged basis. *See Hartford*, 359 F.3d at 1369.

The value of a separate account policy fluctuates with the market value of the underlying investment assets. That poses a problem from an accounting standpoint, as BOLI and COLI plan owners must ordinarily report, on a quarter-to-quarter basis, the value of any policies they own. *Id.* The volatility inherent in short-term market values has made some banks and companies reluctant to purchase these plans. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, 771 F. Supp. 2d 1054, 1056 (E.D. Mo. 2011). Stable value protected investments address that problem by providing a mechanism for stabilizing the reported value of the policies, wherein a third-party guarantor (the "stable value protected writer") guarantees a particular value (the "book value") of the life insurance policy regardless of its market value. To offset the risk to a potential guarantor for providing that service, the guarantor is paid a fee and restrictions are placed on the policyholder's right to cash in on the policy. *Hartford*, 359 F.3d at 1369. As we previously explained, the asserted patents "provide[] a computerized means for tracking the book value and market value of the policies and calculating the credits representing the amount the stable value protected writer must guarantee and pay should the policy be paid out prematurely." *Id.*

The asserted patents disclose specific formulae for determining the values required to manage a stable value

protected life insurance policy. For example, the specification discloses creating and initializing a fund by performing particular "calculations and comparisons" to determine an "initial unit value of the policy." '037 patent col.12 ll.56–58; *see also id.* col.11 l.67–col.12 l.57, fig. 11. The specification then discloses "processing [that] is required at regular intervals to track existing funds." *Id.* col.12 ll.60–61; *see also id.* col.12 l.59–col.15 l.10, figs. 12–16. Such processing includes the calculation of "fees" for the individuals who manage the life insurance policy. *Id.* col.12 l.65–col.13 l.15. That processing also includes the computation of values used for determining "surrender value protection investment credits," which, as we previously explained, "means the difference between the actual value of a protected investment and the targeted return value of that investment at the time the protected life insurance policy is surrendered." *Hartford*, 359 F.3d at 1372. Those computations include the concept of a "targeted return," calculated as follows:

> The Stable Value Protected funds provide an initial targeted return for the first period of an investment. Upon completion of the first period, the value of the fund, the "market value," is compared with the "calculated" value of the fund which is the "book value." The "calculated" value of the fund is calculated by multiplying the initial value of the fund by (1+targeted return), wherein the targeted return for the next period is calculated using the formula:
>
> $$TR=[(MV/BV)^{(1/D)}\times(1+YTM)]-1,$$
>
> where [TR] is the targeted return, MV is the market value of a fund, BV is the book value of a fund, D is the duration of a fund and YTM is the current yield to market. . . .

'037 patent col.3 ll.18–30; *see also id.* col.13 ll.44–53 (disclosing formulae for calculating a "policy value for the present day" and a "policy unit value for the present day"). Those computations also include the "duration of a fund," which is calculated according to a formula well-known in the prior art. *Id.* col.3 l.28–col.4 l.5. As the specification explains, "[u]sing the concepts of duration and targeted return, the actual performance of the underlying securities in the fund is smoothed over time." *Id.* col.4 ll.6–8.

At issue on appeal from the '792 patent are asserted claims 9, 17, 18, 28, and 37. The asserted claims include methods and computer-readable media. Claims 9 and 28 are independent method claims. Claims 9 reads:

> 9. A method for managing a life insurance policy on behalf of a policy holder, the method comprising the steps of:
>
> generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities;
>
> calculating fee units for members of a management group which manage the life insurance policy;
>
> calculating surrender value protected investment credits for the life insurance policy;
>
> determining an investment value and a value of the underlying securities for the current day;
>
> calculating a policy value and a policy unit value for the current day;
>
> storing the policy unit value for the current day; and
>
> one of the steps of:

> removing the fee units for members of the management group which manage the life insurance policy, and
>
> accumulating fee units on behalf of the management group.

'792 patent col.16 l.55–col.17 l.8. Independent claim 28 claims "A method for managing a life insurance policy" comprising steps that are not materially different from the steps of claim 9. *Id.* col.19 ll.10–22. Claims 17 and 37 depend from independent claims 9 and 28, respectively, and require that the methods steps "are performed by a computer." *Id.* col.17 ll.60–61; *id.* col.20 ll.32–33. Claim 18, the computer-readable medium claim, reads: "A computer readable medi[um] for controlling a computer to perform the steps" set out in method claim 9. *Id.* col.17 l.63–col.18 l.15.

Before us on appeal from the '037 patent are asserted claims 1, 8, 9, 17–21, 27, 28, 37, 42, 49, 52, 60, 63, 66–68, 72–77, 81–83, 87, 88, and 91–95. Independent claims 9, 28, and 52 claim a "method for managing a life insurance policy" that is not materially different from the methods claimed in the '792 patent. For example, claim 9 reads:

> 9. A method for managing a life insurance policy comprising:
>
> generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities of the stable value protected investment;
>
> calculating fees for members of a management group which manage the life insurance policy;

> calculating credits for the stable value protected investment of the life insurance policy;
> determining an investment value and a value of the underlying securities of the stable value protected investment for the current day;
> calculating a policy value and a policy unit value for the current day;
> storing the policy unit value for the current day; and
> removing a value of the fees for members of the management group which manage the life insurance policy.

'037 patent col.16 ll.31–50. Each independent method claim is further limited in a dependent claim requiring that the method be "performed by a computer." *Id.* claims 17, 37, 60. Independent claims 18 and 63 are directed to a "computer readable medi[um] for controlling a computer to perform the steps" set out in the method claims. Claim 18, for example, recites the same seven steps set forth in method claim 9, above.

Independent claims 1, 19, and 42 of the '037 patent are system claims, which track the content of the aforementioned method and medium claims. For example, claim 1 reads:

> 1. A life insurance policy management system comprising:
>
> a policy generator for generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities of the stable value protected investment;

> a fee calculator for calculating fees for members of a management group which manage the life insurance policy;
> a credit calculator for calculating credits for the stable value protected investment of the life insurance policy;
> an investment calculator for determining an investment value and a value of the underlying securities of the stable value protected investment for the current day;
> a policy calculator for calculating a policy value and a policy unit value for the current day;
> digital storage for storing the policy unit value for the current day; and
> a debitor for removing a value of the fees for members of the management group which manages the life insurance policy.

Id. col.15 ll.28–48.

In 2000, Bancorp sued Sun Life Assurance Company of Canada (U.S.) ("Sun Life") for infringement of the '792 patent. In 2002, in a separate patent infringement suit filed by Bancorp, the district court invalidated all claims of the '792 patent for indefiniteness. *See Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, No. 4:00-CV-70, 2002 WL 32727071 (E.D. Mo. Feb. 13, 2002). Bancorp and Sun Life then jointly stipulated to dismiss their case due to collateral estoppel arising from the district court's invalidity ruling in *Hartford*. The parties further agreed that if the district court's *Hartford* ruling was reversed on appeal then their case would be reinstated. The district court entered a judgment of conditional dismissal.

In 2004, we reversed the district court's *Hartford* ruling. *Hartford*, 359 F.3d 1367. The district court subsequently vacated its judgment of dismissal in the present case. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, No. 4:00-CV-1073 (E.D. Mo. July 22, 2004), ECF No. 77. In 2009 Bancorp filed an amended complaint adding a claim for infringement of the '037 patent. The parties then submitted a joint claim construction and prehearing statement addressing numerous disputed claim terms in the '792 and '037 patents. Before the court construed the claims, Sun Life moved for summary judgment of invalidity under § 101 for failure to claim patent-eligible subject matter. The court stayed the briefing on Sun Life's motion pending the Supreme Court's decision in *Bilski v. Kappos*, 130 S. Ct. 3218 (2010). After *Bilski* was decided, briefing on Sun Life's summary judgment motion commenced.

In a memorandum and order dated February 14, 2011, the district court granted Sun Life's motion for summary judgment of invalidity under § 101. *Bancorp*, 771 F. Supp. 2d at 1067. The court first noted its decision to determine invalidity under § 101 without addressing the parties' claim construction dispute. *Id.* at 1059. The court then concluded that there was no meaningful distinction between the asserted "process," "system," and "media" claims, and that each would be analyzed as a process claim. *Id.*; *see also id.* at 1065. Next, after reviewing *Bilski* and other opinions, the court concluded that "the machine-or-transformation test remains a useful tool in determining whether a claim is drawn to an abstract idea and thus unpatentable under § 101." *Id.* at 1061.

Applying that test, the court evaluated the particular limitations of the asserted claims and found them deficient. On the machine prong, the court noted that the specified computer components are no more than objects

on which the claimed methods operate, and that the central processor is nothing more than a general purpose computer programmed in an unspecified manner. *Id.* at 1064. Additionally, the court noted that "although it would be inefficient to do so, the steps for tracking, reconciling and administering a life insurance policy with a stable value component can be completed manually." *Id.* at 1065. On the transformation prong, the court determined that the claims do not effect a transformation, as they "do not transform the raw data into anything other than more data and are not representations of any physically existing objects." *Id.* at 1066. Finally, the court analogized the asserted claims to those that the Supreme Court found unpatentable in *Bilski*, *Gottschalk v. Benson*, 409 U.S. 63 (1972), and *Parker v. Flook*, 437 U.S. 584 (1978), and concluded that the claims were invalid under § 101 as directed to patent-ineligible abstract ideas. *Bancorp*, 771 F. Supp. 2d at 1066–67.

After considering and denying Bancorp's motion for reconsideration, *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, No. 4:00-CV-1073 (E.D. Mo. Apr. 27, 2011), ECF No. 408, the court entered final judgment in favor of Sun Life. Bancorp timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

Summary judgment is appropriate where "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). We review a district court's grant of summary judgment without deference, reapplying the same standard as the district court and drawing all reasonable inferences in favor of the nonmovant. *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1366 (Fed. Cir. 2011). We review questions about patent-eligible subject matter

under 35 U.S.C. § 101 without deference. *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 867 (Fed. Cir. 2010).

I.

A preliminary question in this appeal involves the matter of claim construction. As noted above, the district court declined to construe numerous disputed terms prior to considering invalidity under § 101. The court stated that "[t]here is no requirement that claims construction be completed before examining patentability." *Bancorp*, 771 F. Supp. 2d at 1059. After the district court's decision, we decided *Ultramercial, LLC v. Hulu, LLC*, in which we stated that "[t]his court has never set forth a bright line rule requiring district courts to construe claims before determining subject matter eligibility." 657 F.3d 1323, 1325 (Fed. Cir. 2011), *vacated sub nom. Wild-Tangent, Inc. v. Ultramercial, LLC*, No. 11-962, 2012 WL 369157 (U.S. May 21, 2012). For support, we cited *Bilski*, noting that the Supreme Court "f[ound] subject matter ineligible for patent protection without claim construction." *Id.* Although *Ultramercial* has since been vacated by the Supreme Court, we perceive no flaw in the notion that claim construction is not an inviolable prerequisite to a validity determination under § 101. We note, however, that it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.

Bancorp argues that we must either (1) vacate and remand the district court's judgment with instructions to construe the claims in the first instance; or (2) adopt Bancorp's proposed constructions of the disputed claim terms, because, as the nonmovant on summary judgment,

it is entitled to all reasonable inferences in its favor. Bancorp argues that under its construction each claimed "system" requires "one or more computers," and thus those claims cannot constitute abstract ideas. Bancorp, while acknowledging that the specific hardware components recited in the system claims are not present in the method claims, asserts that a computer is necessary as a practical matter to perform the claimed processes on account of the "complex and dynamic nature of the invention," and that the computer amounts to more than insignificant extra-solution activity. Bancorp Br. 52.

Sun Life responds by arguing that even if we adopt Bancorp's proposed constructions, the claims are not patent eligible. Sun Life Br. 38 ("Bancorp argues that the Court should apply its constructions. That is fine." (citation omitted)). According to Sun Life, assuming the claims require a computer, that limitation merely amounts to insignificant post-solution activity incapable of rendering the claimed subject matter patent eligible. Sun Life thus contends that the district court correctly determined that the asserted claims relate to patent-ineligible abstract ideas.

Numerous claim terms were disputed by the parties at the district court. For purposes of the § 101 issue on appeal, however, the parties' disagreement boils down to whether the claimed systems and methods require a computer. Although the district court declined to construe the claims, that does not preclude us from making that legal determination on appeal. *See Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc) (concluding that claim construction is a pure issue of law). Just as a district court may construe the claims in a way that neither party advocates, *Exxon Chemical Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) ("[T]he trial judge has an independent obliga-

tion to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties."), we may depart from the district court and adopt a new construction on appeal, *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1323–24 (Fed. Cir. 2008) (adopting "a new claim construction on appeal," and noting that "the court has an independent obligation to construe the terms of a patent [and] need not accept the constructions proposed by either party").

Before proceeding to our § 101 analysis, we construe the claims as follows. We conclude that the asserted system claims require "one or more computers," as Bancorp asserts and as Sun Life appears to concede. The plain language of the system claims requires particular computing devices, such as a "generator," a "calculator," and "digital storage." The specification supports our construction, explaining that Figure 1, which shows "an embodiment of the system of the present invention," depicts a "computer" and "a central processing unit for a memory subsystem." '037 patent col.6 ll.44–47.

Regarding the computer-readable medium claims, the specification explains that that term refers generally to a "high density removable storage means," *id.* col.7 ll.66–67, such as a "compact disc," *id.* col.6 ll.50–51, col.7 l.62. Neither party appears to argue that "computer readable media" should not carry this plain and ordinary meaning.

As for the method claims, the parties dispute whether the steps require a computer to be performed. In resolving that issue, we must distinguish between the independent and dependent claims. The plain language of the independent method claims does not require a computer. As noted above, however, each asserted independent method claim is further followed by a dependent claim requiring that the method be "performed by a computer."

The doctrine of claim differentiation, while not a hard and fast rule of construction, creates a presumption that the independent method claims do not contain this limitation, for "the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("[W]here the limitation that is sought to be 'read into' an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.").

We conclude that the asserted independent method claims do not require implementation on a computer. The plain language of those claims does not require a computer, and the doctrine of claim differentiation creates a presumption that the independent claims, unlike the dependent claims, do not require a computer to be implemented. Bancorp fails to rebut that presumption with its unpersuasive assertion that a computer is "inherent" in the independent method claims. Bancorp Br. 52. As the district court observed, "although it would be inefficient to do so, the steps for tracking, reconciling and administering a life insurance policy with a stable value component can be completed manually." *Bancorp*, 771 F. Supp. 2d at 1065. Unlike the independent claims, however, the dependent method claims are plainly limited to being "performed by a computer."

II.

We turn now to the issue of patent eligibility. Section 101 of the Patent Act defines patentable subject matter, stating that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and

requirements of this title." 35 U.S.C. § 101; *see also* 35 U.S.C. § 100(b) ("The term 'process' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."). From those broad categories, the Supreme Court has carved out three exceptions of subject matter ineligible for patent protection: "laws of nature, physical phenomena, and abstract ideas." *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); *see also Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012). As the Court has explained, "[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." *Benson*, 409 U.S. at 67. "[A] process is not unpatentable simply because it contains a law of nature or a mathematical algorithm," and "an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (internal quotation marks omitted). However, "limiting an abstract idea to one field of use or adding token postsolution components d[oes] not make the concept patentable." *Bilski*, 130 S. Ct. at 3231. In other words, a recitation of ineligible subject matter does not become patent-eligible merely by adding the words "apply it." *See Mayo*, 132 S. Ct. at 1294.

Bancorp argues that its system and medium claims cover tangible machines and manufactures and therefore cannot be considered patent-ineligible abstract ideas under § 101. According to Bancorp, the district court ignored the computer and hardware limitations in those claims when performing its § 101 analysis. Bancorp further contends that its "method" claims are patent eligible under our opinions in *Research Corp.* and *Ultramercial* (the latter of which the Supreme Court vacated

after Bancorp filed its briefs). Bancorp contends that its process claims have specific applications to the marketplace and require complex computer programming. Bancorp also contends that the district court placed improper weight on the machine-or-transformation test, which, according to Bancorp, its process claims nonetheless satisfy.

Sun Life, in response, argues that Bancorp's asserted process claims are unpatentable under *Bilski* and the Supreme Court's other § 101 opinions. Sun Life asserts that the process claims fail the machine-or-transformation test because the claim steps do not require a computer to be performed. Even if those claims required a computer, Sun Life contends, the claims are unpatentable, because the routine use of a computer to perform calculations cannot turn an otherwise ineligible mathematical formula or law of nature into patentable subject matter. Finally, Sun Life argues that the system and medium claims merely paraphrase the unpatentable method claims, and as a result they are not patent eligible for the same reasons as the method claims.

A.

We first address Bancorp's assertion that the district court legally erred by extending the Supreme Court's prohibition against patenting abstract ideas to Bancorp's system and medium claims. In its § 101 analysis, the district court perceived no difference between the claimed methods, on the one hand, and the claimed systems and media, on the other. Rather, the court noted that the "specified machines appear to be no more than 'object[s] on which the method operates.'" *Bancorp*, 771 F. Supp. 2d at 1064 (alteration in original) (quoting *Graff/Ross Holdings LLP v. Fed. Home Loan Mortg. Corp.*, No. 07-796, 2010 WL 6274263, at *5 (D.D.C. Aug. 27, 2010)). Previ-

ously sitting *en banc*, we declined in *In re Alappat* to decide whether a claimed apparatus could be unpatentably abstract under § 101. Referring to the abstract-idea exception as the "mathematical" exception, we stated: "*Even if* the mathematical subject matter exception to § 101 does apply to true apparatus claims, the claimed subject matter in this case does not fall within that exception." 33 F.3d 1526, 1542 (Fed. Cir. 1994) (en banc) (emphasis added). Subsequently, however, we explained in *CyberSource Corp. v. Retail Decisions, Inc.* that we look not just to the type of claim but also "to the underlying invention for patent-eligibility purposes." 654 F.3d 1366, 1374 (Fed. Cir. 2011). We applied that principle in concluding that a claim directed to a "computer readable medium," despite its format, should be treated no differently from the comparable process claims held to be patent ineligible under § 101. *Id.* at 1375. Most recently, in *CLS Bank International v. Alice Corp.*, we held that the format of the various method, system, and media claims asserted in that case "d[id] not change the patent eligibility analysis under § 101." No. 2011-1301, 2012 WL 2708400, at *10 (Fed. Cir. July 9, 2012).

Thus, under *Cybersource* and *CLS*, a machine, system, medium, or the like may in some cases be equivalent to an abstract mental process for purposes of patent ineligibility. As the Supreme Court has explained, the form of the claims should not trump basic issues of patentability. *See Flook*, 437 U.S. at 593 (advising against a rigid reading of § 101 that "would make the determination of patentable subject matter depend simply on the draftsman's art"); *see also Mayo*, 132 S. Ct. at 1294.

On the facts of this case, we hold that the district court correctly treated the asserted system and medium claims as no different from the asserted method claims for patent eligibility purposes. For example, in the '037

patent, method claim 9 recites a "method for managing a life insurance policy comprising" seven steps, whereas medium claim 18 recites "a computer readable media [sic] for controlling a computer to perform" the same seven steps of method claim 9, repeated word for word. *Compare* '037 patent col.16 ll.31–48, *with id.* col.17 ll.33–50. There is no material difference between these two categories of claims in the asserted patents.

The equivalence of the asserted method and system claims is also readily apparent. By way of example, we compare method claim 9 and system claim 1 of the '037 patent. *Id.* col.15 ll.28–48, col.16 ll.31–48. Claim 9 claims a "method for managing a life insurance policy," whereas claim 1 of that patent claims "a life insurance policy management system." Claim 9 includes the step of "generating a life insurance policy," whereas claim 1 includes "a policy generator for generating a life insurance policy." Claim 9 includes the step of "calculating fees," while claim 1 including "a fee calculator for calculating fees." Claim 9 recites "calculating credits," while claim 1 recites "a credit calculator for calculating credits." Claim 9 includes "storing the policy unit value," whereas claim 1 includes "digital storage for storing the policy unit value." And so on. The only difference between the claims is the form in which they were drafted. The district court correctly treated the system and method claims at issue in this case as equivalent for purposes of patent eligibility under § 101.

B.

Turning now to the district court's ruling on the invalidity of the asserted claims under § 101, we conclude that the claims cover no more than abstract ideas and therefore do not recite patent-eligible subject matter. Bancorp's primary argument boils down to the contention that

because its claims are limited to being performed on a computer, they cannot claim only an abstract idea. Even aside from the fact, explained above, that Bancorp's independent method claims do not require a computer, Bancorp's position is untenable.

Modern computer technology offers immense capabilities and a broad range of utilities, much of which embodies significant advances that reside firmly in the category of patent-eligible subject matter. At its most basic, however, a "computer" is "an automatic electronic device for performing mathematical or logical operations." 3 Oxford English Dictionary 640 (2d ed. 1989). As the Supreme Court has explained, "[a] digital computer . . . operates on data expressed in digits, solving a problem by doing arithmetic as a person would do it by head and hand." *Benson*, 409 U.S. at 65. Indeed, prior to the information age, a "computer" was not a machine at all; rather, it was a job title: "a person employed to make calculations." Oxford English Dictionary, *supra*. Those meanings conveniently illustrate the interchangeability of certain mental processes and basic digital computation, and help explain why the use of a computer in an otherwise patent-ineligible process for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes. As we have explained, "[s]imply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render the claim patent eligible." *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not. *See SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir.

2010) ("In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations."). Thus, as we held in *Fort Properties, Inc. v. American Master Lease LLC*, the limitation "using a computer" in an otherwise abstract concept did not "'play a significant part in permitting the claimed method to be performed,'" 671 F.3d 1317, 1323 (Fed. Cir. 2012) (quoting *Dealertrack*, 674 F.3d at 1333), and thus did not "impose meaningful limits on the claim's scope," *id.* (quoting *CyberSource*, 654 F.3d at 1375). The computer required by some of Bancorp's claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims. *See Benson*, 409 U.S. at 67 (invalidating as patent-ineligible claimed processes that "can be carried out in existing computers long in use, no new machinery being necessary," and "can also be performed without a computer").

We agree with the district court that for purposes of § 101 there is no material difference between the claims invalidated in *Bilski* and those at issue here. *Bancorp*, 771 F. Supp. 2d at 1066. In *Bilski*, the patent applicant "attempt[ed] to patent the use of the abstract idea of hedging risk in the energy market and then instruct[ed] the use of well-known random analysis techniques to help establish some of the inputs into the equation." 130 S. Ct. at 3231. Here, Bancorp's patents "attempt to patent the use of the abstract idea of [managing a stable value protected life insurance policy] and then instruct the use of well-known [calculations] to help establish some of the inputs into the equation." *Id.* As in *Bilski*, the claims do

not effect a transformation, and the fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter. We discern no fault in the conclusion of the district court, *Bancorp*, 771 F. Supp. 2d at 1066, that the asserted claims do not meet either prong of the machine-or-transformation test—which, while "not the sole test for deciding whether an invention is a patent-eligible 'process,'" remains "a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101," *Bilski*, 130 S. Ct. at 3227.

The principal precedent relied on by Bancorp in arguing for patent eligibility is *Research Corp.* In that case, the asserted patents claimed processes for enabling a computer to render a halftone image of a digital image by comparing, pixel by pixel, the digital image against a two-dimensional array called a "mask." 627 F.3d at 863. We reversed the district court's grant of summary judgment that the asserted claims were invalid under § 101, concluding that the processes were not "so manifestly" abstract as to override the statutory language of § 101. *Id.* at 868. In so holding, we observed that the claimed "invention presents functional and palpable applications in the field of computer technology." *Id.* We also noted that "inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract" as to be ineligible for patent protection. *Id.* at 869.

Research Corp. is different from the present case in two critical respects. First, the claimed processes in *Research Corp.* plainly represented improvements to computer technologies in the marketplace. For example, as compared to the prior art, the "inventive mask produce[d] higher quality halftone images while using less

processor power and memory space." *Id.* at 865. No such technological advance is evident in the present invention. Rather, the claims merely employ computers to track, reconcile, and administer a life insurance policy with a stable value component—*i.e.*, the computer simply performs more efficiently what could otherwise be accomplished manually. *Bancorp*, 771 F. Supp. 2d at 1065.

Second, the method in *Research Corp.*, which required the manipulation of computer data structures (the pixels of a digital image and the mask) and the output of a modified computer data structure (the halftoned image), was dependent upon the computer components required to perform it. *See CyberSource*, 654 F.3d at 1376 ("[T]he method [in *Research Corp.*] could not, as a practical matter, be performed entirely in a human's mind."). Here, in contrast, the computer merely permits one to manage a stable value protected life insurance policy more efficiently than one could mentally. Using a computer to accelerate an ineligible mental process does not make that process patent-eligible.

Bancorp additionally relies on *SiRF*, 601 F.3d 1319, but that case also does not control the outcome here. In *SiRF*, we evaluated the patent eligibility of a "method for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals." *Id.* at 1331. The GPS receiver, we noted, was "integral to each of the claims at issue." *Id.* at 1332. Observing that we were "not dealing with a situation in which there [wa]s a method that [could] be performed without a machine," and that there was "no evidence . . . that the calculations [could] be performed entirely in the human mind," we concluded that the claims were eligible for patenting under § 101. *Id.* at 1333. Bancorp seeks to analogize its case to *SiRF*, contending that a computer "plays a significant part" in its claims because they require "precise and

repetitive calculation." Bancorp Br. 52. That misses the point. It is the management of the life insurance policy that is "integral to each of [Bancorp's] claims at issue," not the computer machinery that may be used to accomplish it. *See SiRF*, 601 F.3d at 1332.

When the insignificant computer-based limitations are set aside from those claims that contain such limitations, the question under § 101 reduces to an analysis of what additional features remain in the claims. *See Mayo*, 132 S. Ct. at 1297 (questioning, after setting aside the claimed law of nature, "[w]hat else is there in the claims before us?"). The asserted claims require determining values—for example, "an initial value based on a value of underlying securities," "fee units," "surrender value protected investment credits," "an investment value and a value of the underlying securities for the current day," and "a policy value and a policy unit value for the current day"—and then "storing," "removing," and/or "accumulating" some of those values. '792 patent col.16 l.55–col.17 l.8. As the formulae in the specification indicate, the determination of those values, and their subsequent manipulation, is a matter of mere mathematical computation.

The district court correctly held that without the computer limitations nothing remains in the claims but the abstract idea of managing a stable value protected life insurance policy by performing calculations and manipulating the results. *Bancorp*, 771 F. Supp. 2d at 1066. Bancorp's claimed abstract idea impermissibly "preempt[s]" the mathematical concept of managing a stable value protected life insurance policy. *Benson*, 409 U.S. at 72 (rejecting claims that "would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself"); *Flook*, 437 U.S. at 594 ("[The claimed] process is unpatentable under § 101, not

because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention.”).

Bancorp asserts that its claims are not abstract because they are limited to use in the life insurance market. In *Bilski* the Supreme Court discredited a similar argument, explaining that although some of those claims limited the hedging process to use in commodities and energy markets, “*Flook* established that limiting an abstract idea to one field of use or adding token postsolution components did not make the concept patentable.” 130 S. Ct. at 3231. Bancorp further contends that its claims cannot be preemptive because Sun Life alleged that its stable value protected products do not infringe Bancorp’s claims. That argument, while creative, is unpersuasive. The Federal Rules permit a party to plead in the alternative. *See* Fed. R. Civ. P. 8(d)(3) (“A party may state as many separate claims or defenses as it has, regardless of consistency.”). Sun Life’s alternative assertion of noninfringement does not detract from its affirmative defense of invalidity under § 101.

Finally, our conclusion is not inconsistent with *CLS*, which we decided after hearing oral arguments in this appeal. In *CLS*, we reversed the district court and held that method, system, and medium claims directed to a specific application of exchanging obligations between parties using a computer were patent eligible under § 101. No. 2011-1301, 2012 WL 2708400, at *10–11. In faulting the district court for “ignoring claim limitations in order to abstract a process down to a fundamental truth,” *id.* at *11, we explained that the asserted claims in *CLS* were patent eligible because “it [wa]s difficult to conclude that the computer limitations . . . d[id] not play a *significant part* in the performance of the invention or that the

claims [we]re not limited to a *very specific application* of the [inventive] concept," *id.* at *12 (emphasis added). Here, in contrast, the district court evaluated the limitations of the claims as a whole before concluding that they were invalid under § 101. *Bancorp*, 771 F. Supp. 2d at 1056–57, 1064–66. As we explained above, the computer limitations do not play a "significant part" in the performance of the claimed invention. And unlike in *CLS*, the claims here are not directed to a "very specific application" of the inventive concept; as noted, Bancorp seeks to broadly claim the unpatentable abstract concept of managing a stable value protected life insurance policy. *See id.* at 1066.

Because Bancorp's asserted claims are directed to no more than a patent-ineligible abstract idea, we affirm the district court's holding of invalidity under § 101.

CONCLUSION

We have considered Bancorp's remaining arguments and find them unpersuasive. We therefore affirm the district court's judgment that the asserted claims are invalid.

AFFIRMED

CERTIFICATE OF SERVICE

I, David A. Perlson, hereby certify that on the August 27, 2012, I caused to be served two true and correct copies of the confidential combined petition and one copy of the non-confidential combined petition below:

> COMBINED PETITION FOR PANEL REHEARING AND REHEARING *EN BANC* OF PLAINTIFF-APPELLANT BANCORP SERVICES, LLC [CONFIDENTIAL]
>
> COMBINED PETITION FOR PANEL REHEARING AND REHEARING *EN BANC* OF PLAINTIFF-APPELLANT BANCORP SERVICES, LLC [NON-CONFIDENTIAL]

to be sent by electronic mail and Federal Express overnight delivery to:

> Aaron Moore
> AMoore@foley.com
> Matthew Lowrie
> MLowrie@foley.com
> Kevin Littman
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>
> *Attorneys for Defendant-Appellee Sun Life Assurance Company of Canada (U.S.)*

_____

David A. Perlson
Attorney for Plaintiff-Appellant Bancorp Services, LLC

CERTIFICATE OF SERVICE

I, David A. Perlson, hereby certify that on August 27, 2012, I filed the originals, eighteen true and correct copies of the confidential combined petition, and three copies of the non-confidential combined petition listed below with the Clerk of the Court:

> COMBINED PETITION FOR PANEL REHEARING AND REHEARING *EN BANC* OF PLAINTIFF-APPELLANT BANCORP SERVICES, LLC [CONFIDENTIAL]
>
> COMBINED PETITION FOR PANEL REHEARING AND REHEARING *EN BANC* OF PLAINTIFF-APPELLANT BANCORP SERVICES, LLC [NON-CONFIDENTIAL]

to be delivered in person by hand to:

Jan Horbaly
Clerk of Court
United States Court of Appeals for the Federal Circuit
717 Madison Place, NW
Washington, DC 20439

_____

David A. Perlson
Attorney for Plaintiff-Appellant Bancorp Services, LLC

DECLARATION OF AUTHORITY PURSUANT TO FEDERAL CIRCUIT RULE 47.3(d)

I, Patrick Fitch, hereby declare as follows:

I am an associate at the law firm of Quinn Emanuel Urquhart & Sullivan, LLP. I made this declaration pursuant to Federal Circuit Rule 47.3(d). I have personal knowledge of the matters contained in this declaration.

David A. Perlson is a partner at Quinn Emanuel Urquhart & Sullivan, LLP. He has authorized me to sign on his behalf Bancorp's Combined Petition for Panel Rehearing and Rehearing *En Banc* because he is unavailable to do so himself.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 27, 2012, in Washington, D.C.

_____

Patrick Fitch