**IN THE UNITED STATES DISTRICT COURT**
**FOR THE MIDDLE DISTRICT OF FLORIDA**

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| **BLUEPRINT IP SOLUTIONS LLC,** | Civil Action No.:   **8:19-cv-03127-VMC-AAS** |
| Plaintiff, | |
| v. | **PATENT CASE** |
| **PUBLIX ASSET MANAGEMENT COMPANY,** | **TRIAL BY JURY DEMANDED** |
| Defendant. | |

## FIRST AMENDED COMPLAINT FOR INFRINGEMENT OF PATENT

Now comes, Plaintiff, Blueprint IP Solutions LLC ("Plaintiff" or "Blueprint IP Solutions"), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

## NATURE OF THE ACTION

1.      This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code ("U.S.C.") to prevent and enjoin Defendant Publix Asset Management Company, (hereinafter "Defendant"), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No. 8,089,980 ("the '980 Patent" or the "Patent-in-Suit"), which is attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney's fees, and costs.

## THE PARTIES

2.      Plaintiff is a Texas limited liability company with its principal place of business at 6009 West Parker Road, Suite 149-1009, Plano, TX 75093.

3.      Upon information and belief, Defendant is a corporation organized under the laws of Florida, having a principal place of business at 3300 Publix Corporate Parkway, Lakeland,

Florida 33811. Upon information and belief, and according to the Florida Secretary of State's website, Defendant may be served with process c/o Merriann M. Metz, 3300 Publix Corporate Parkway, Lakeland, Florida 33811.

## JURISDICTION AND VENUE

4.      This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq*.

5.      The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).

6.      This Court has personal jurisdiction over Defendant by virtue of its systematic and continuous contacts with this jurisdiction and its residence in this District, as well as because of the injury to Plaintiff, and the cause of action Plaintiff has risen in this District, as alleged herein.

7.      Defendant is subject to this Court's specific and general personal jurisdiction pursuant to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Delaware and in this judicial District; and (iii) being incorporated in this District.

8.      Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendant resides in this District under the Supreme Court's opinion in *TC Heartland v. Kraft Foods Group Brands LLC,* 137 S. Ct. 1514 (2017) through its incorporation, and regular and established place of business in this District.

## FACTUAL ALLEGATIONS

9.      On January 3, 2012, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '980 Patent, entitled "METHOD FOR PROTECTION SWITCHING OF GEOGRAPHICALLY SEPARATE SWITCHING SYSTEMS" after a full and fair examination. The '980 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten.

10.     Plaintiff is presently the owner of the '980 Patent, having received all right, title and interest in and to the '980 Patent from the previous assignee of record.  Plaintiff possesses all rights of recovery under the '980 Patent, including the exclusive right to recover for past infringement.

11.     To the extent required, Plaintiff has complied with all marking requirements under 35 U.S.C. § 287.

12.     The '980 Patent contains sixteen claims, namely three independent claims and thirteen dependent claims.

13.     Claim 1 of the '980 Patent states:

> "1. A method for protection switching of geographically separate switching systems arranged in pairs, comprising:
> providing a pair of switching systems which are geographically separate and which supply a dedicated redundancy to each other, one of the pair of switching systems is in an active operating state and the other is in a hot-standby operating state;
> controlling the communication between the each of the pair switching system and a monitoring unit in accordance with the an operating state of the respective switching system;
> when a loss of the communication to the switching system in the active operating state occurs:
> activating, by the monitoring unit, the switching system in the hot-standby operating state to be in the active operating state, and deactivating, by the monitoring unit, the switching system with the communication loss to be in the hot-

standby operating state, wherein when in the hot-standby operating state, the respective switching system is not active in terms of switching functions; and further features: periodically sending an IP lease request to the monitoring unit by a packet-based interface of the switching system in the hot-standby operating state, the packet-based interface is in an inactive state." See Ex. A at Col. 7:13-36.

14.     As identified in the '980 Patent, prior art systems had technological faults. See Ex. A at Col 1:21-34.

15.     More particularly, the '980 Patent identifies that the prior art provided: "Contemporary switching systems (switches) possess a high degree of internal operational reliability owing to the redundant provision of important internal components. This means that a very high level of availability of the switching-oriented functions is achieved in normal operation. If, however, external influencing factors occur on a massive scale (e.g. fire, natural disasters, terrorist attacks, consequences of war, etc.), the precautionary measures taken to increase operational reliability are generally of little use, since the original and replacement components of the switching system are located at the same place and so in a disaster scenario of said kind there is a high probability that both components have been destroyed or rendered incapable of operation." Ex. A at Col. 1:21-34.

16.     To address this specific technical problem, Claim 1 in the '980 Patent comprises a non-abstract method for protections switching of geographically separate systems arranged in pairs. Ex. A at Col. 7:13-36.

17.     Claim 1 of the '980 Patent is a practical application and inventive step of technology that address the specific network-centric problem of when primary and backup components of the switching system are located at the same place.

18.     The '980 Patent indicates that one advantage of its invention of Claim 1 is a method

for protection switching of switching systems which ensures an efficient switchover of a failed

switching system to a redundancy partner in the event of a fault. Ex. A at Col. 1:46-49.

19.     The '980 Patent teaches a 1:1 redundancy as a solution in which each switching

system requiring protection has an identical clone as a redundancy partner having identical

hardware, software and database. The clone is in the powered-up state, but is nonetheless not active

in terms of switching functions. Ex. A at Col. 1:38-43.

20.     The '980 Patent identifies a monitor or monitoring unit that controls switchover

operations that is ranked at a higher level in the network hierarchy. Ex. A at Col. 1:43-45

21.     The '980 Patent provides a robust solution to the previous network-centric

technological problems inasmuch as "it is extremely robust thanks to the use of simple,

standardized IP protocols. Control errors due to temporary outages in the IP core network are

rectified automatically after the outage has been terminated." Ex. A. at Col. 1:60-64.

22.     The '980 Patent provides a robust solution to the previous network-centric

technological problems inasmuch as "a significant advantage of the invention is to be seen in the

fact that in the course of the switchover operation from an active switching system to a hot-standby

switching system no network management and no form of central control unit to support the

switchover operations are required in the participating switching systems." Ex. A. Col. 1:65-68

and 2:1-3.

23.     Claim 1 of the '980 Patent provides a specific solution, to deal with the vulnerability

of geographically collocated switching systems as the method of Claim 1 requires geographically

separate switching systems arranged in pairs, and providing a pair of switching systems which are

geographically separate and which supply a dedicated redundancy to each other, one of the pair of

switching systems is in an active operating state and the other is in a hot-standby operating state; and controlling the communication between the each of the pair switching system and a monitoring unit in accordance with the an operating state of the respective switching system; when a loss of the communication to the switching system in the active operating state occurs: activating, by the monitoring unit, the switching system in the hot-standby operating state to be in the active operating state, and deactivating, by the monitoring unit, the switching system with the communication loss to be in the hot-standby operating state, wherein when in the hot-standby operating state, the respective switching system is not active in terms of switching functions; and further features: periodically sending an IP lease request to the monitoring unit by a packet-based interface of the switching system in the hot-standby operating state, the packet-based interface is in an inactive state. See Ex A at Col. 7:13-36.

24.     The specific method steps of Claim 1, as combined, accomplish the desired result of increased immunity from disaster scenarios between co-located switching systems. See generally Ex. A at Col.1:38-49.

25.     Further, these specific method steps of Claim 1 also accomplish the desired result increasing immunity from a disaster scenario that was a then existing problem in the relevant field of communication switching systems.  See generally Ex. A at Col.1:21-49.

26.     The method of Claim 1 provides other benefits over conventional switching systems including increased flexibility due to the use of standardized IP protocols, and faster correction of control errors due to temporary outages due to the use of standardized IP protocols. Ex. A at Col.1:50-64.

27.     Claim 1 of the '980 Patent provides methods steps that are an unconventional arrangement of method steps because the prior art methodologies would have precautionary

measures taken to increase operational reliability are generally of little use in a disaster scenario, since the original and replacement components of the switching system are located at the same place and so in a disaster scenario of said kind there is a high probability that both components have been destroyed or rendered incapable of operation. Ex. A at Col.1:22-35.

28.     By adding the geographically separate switching systems that are controlled by monitoring unit communicating with the periodic IP lease requests, Claim 1 of the '980 Patent was able to unconventionally generate a method of protecting geographically separate switching systems. Ex. A at Col. 7:13-36.

29.     Claim 1 of the '980 Patent provides specific non-conventional and non-generic arrangement of known, conventional pieces to overcome an existing problem. The method of Claim 1 provides a protection method that would work with many types of communications systems, such as switches or routers. Ex. A at Col. 2:5-7.

30.     Regarding the specific non-conventional and non-generic arrangements of known, conventional pieces to overcome an existing problem, the method of Claim 1 in the '980 Patent would not preempt all ways of protection switching of geographically separate switching systems because Claim 1 requires periodically sending an IP lease request to the monitoring unit. Ex. A at Col.7:33-36.

31.     There are other ways to effectuate the connection between the respective active and inactive switching systems. Specifically, the method does not preempt all redundant communication because the IP lease requests could be sent continuously, not periodically as required by Claim 1 of the '980 patent. Ex. A at Col. 7:13-36

32.     Further with respect to the inventive concept, the method of Claim 1 of the '980 Patent requires periodically sending an IP lease request to the monitoring unit by a packet-based

interface of the switching system in the hot-standby operating state, wherein the packet-based interface is in an inactive state. Ex. A at Col. 7:33-36. This method is a specific implementation of varying the way a control signal (i.e., the IP lease request) is received by the monitoring unit that improves the ability of prior art transmission of data signals between two switches through a monitoring unit as evidenced by the Examiner's comments on the Reasons for Allowance of the '980 Patent. See Ex. C at BLUEPRINT 000025.

33.     Claim 1 of the '980 Patent provides meaningful details on *how* to implement its method, and thus adds something inventive.  Namely, the USPTO indicated that the "Prior art does not disclose and further features: periodically sending an IP lease request to the monitoring unit by a packet-based interface of the switching system in the hot-standby operating state, the packet-based interface is in an inactive state in combination with the rest of the limitations of the claims." See Ex. C at BLUEPRINT 000025. Thus, the "*how*" of the method of Claim 1 corresponds to the USPTO's reasons for allowance. "How" the method operates in an inventive way is due to periodically sending an IP lease request to the monitoring unit by a packet-based interface of the switching system in the hot-standby operating state.

34.     Based on the foregoing assertions, Claim 1 of the '980 Patent provides a non-abstract and an unconventional inventive concept as described in the specification.

35.     In the alternative and at the very least, whether Claim 1 of the '980 Patent provides a non-abstract and an unconventional inventive concept as described in the specification is a genuine issue of material fact that must survive the pleading stage. See *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018) (reversing grant of motion to dismiss; See also *StoneEagle Servs., Inc. v. Pay-Plus Solutions, Inc.*, No. 8:13-CV-2240-T-33MAP, 2015 WL 518852, at *4 (M.D. Fla. Feb. 9, 2015)).

**DEFENDANT'S SYSTEM**

36.     Defendant commercializes, inter alia, methods that perform all the steps recited in at least one claim of the '980 Patent. More particularly, Defendant commercializes, inter alia, methods that perform all the steps recited in Claim 1 of the '980 Patent.  Specifically, Defendant makes, uses, sells, offers for sale, or imports a method that encompasses that which is covered by Claim 1 of the '980 Patent.

37.     Defendant offers solutions and employs personnel, such as the "Publix BIG Data Cloud Developer" to control a network systems (the "Accused System"), that enables a method for protection switching of geographically separate systems arranged in pairs.  For example, the Accused System performs the method for protection switching of geographically separate systems arranged in pairs.  A non-limiting and exemplary claim chart comparing the Accused System of Claim 1 of the '980 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten.

38.     As recited in Claim 1, a system, at least in internal testing and usage, utilized by the Accused System practices a method for protection switching of geographically separate switching systems (e.g., distributed or remote racks for Datanodes) arranged in pairs (e.g., racks are arranged in pairs). On information and belief, the accused party utilizes Hadoop HDFS.  See Exhibit B.

39.     As recited in one step of Claim 1, the system, at least in internal testing and usage, utilized by the Accused System practices providing a pair of switching systems (e.g., racks for Datanodes are arranged in pair) which are geographically separate (e.g., distributed or remote racks for Datanodes) and which supply a dedicated redundancy to each other, one of the pair of switching systems is in an active operating state (e.g., a local rack for data node) and the other is in a hot-

standby operating state (e.g., a remote rack for data node). The Hadoop distributed file system

(HDFS) architecture provides data replication at Data nodes for failure protection. A replication

factor represents number of replicas of a file at different Data nodes. The replication factor is 3 for

a file by default. A first replica is stored at a Data node in a local rack (e.g., active operating state)

and two replicas at two different Data nodes in a remote rack (e.g., hot-standby state). The two

racks for data nodes are distributed or remote to each other. The data nodes in remote rack keep

their state synchronized with the data node in local rack to perform fast failover. See Exhibit B.

40.     As recited in another step of Claim 1, the system, at least in internal testing and

usage, utilized by the Accused System practices controlling the communication between the each

of the pair switching system (e.g., distributed or remote racks for Datanodes) and a monitoring

unit (e.g., Namenode) in accordance with the operating state (e.g., active or hot-standby) of the

respective switching system. The monitoring unit (i.e., Namenode) monitors status and health of

the data nodes in different racks. Upon information and belief, the system comprises a controlling

unit or administrative unit which configures and manage Namenode services and control

communication between the Namenode and the Data nodes. See Exhibit B.

41.     As recited in another step of Claim 1, the system, at least in internal testing and

usage, utilized by the Accused System practices determining a loss of the communication to the

switching system in the active operating state (e.g., a data node failure in a rack). The monitoring

unit (i.e., Namenode) monitors status and health of the data nodes in different racks. Each data

node sends a periodic heartbeat message to the Namenode. The Namenode marks a data node as

dead or lost when doesn't receive a heartbeat message from the node.  See Exhibit B.

42.     As recited in another step of Claim 1, the system, at least in internal testing and

usage, utilized by the Accused System practices activating, by the monitoring unit (e.g., Namenode

server), the switching system (e.g., data nodes in different racks) in the hot-standby operating state to be in the active operating state, and deactivating, by the monitoring unit, the switching system with the communication loss to be in the hot-standby operating state, wherein when in the hot-standby operating state, the respective switching system is not active in terms of switching functions; and further features: periodically sending an IP lease request to the monitoring unit by a packet-based interface of the switching system in the hot-standby operating state, the packet-based interface is in an inactive state. The system utilized by the Accused System comprises a The Namenode (i.e., monitoring unit) switches states of rack pair, the data node pair at local rack is considered as lost or dead and the data nodes at remote rack are used primarily to manage traffic. The data node at the remote rack periodically pings the Namenode for network resources to communicate with a client device. The data node sends an IP lease request to the monitoring unit (e.g., Namenode). See Exhibit B.

43.     The elements described in the preceding paragraphs are covered by at least Claim 1 of the '980 Patent. Thus, Defendant's use of the Accused System is enabled by the method described in the '980 Patent.

## INFRINGEMENT OF THE PATENT-IN-SUIT

44.     Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs.

45.      In violation of 35 U.S.C. §271, Defendant is now, and has been directly infringing the '980 Patent.

46.     Defendant has had knowledge of infringement of the '980 Patent at least as of the service of the present Complaint.

47.     Defendant has directly infringed and continues to directly infringe at least one claim of the '980 Patent by using, at least through internal testing or otherwise, the Accused System without authority in the United States, and will continue to do so unless enjoined by this Court. As a direct and proximate result of Defendant's direct infringement of the '980 Patent, Plaintiff has been and continues to be damaged.

48.     By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the '980 Patent, pursuant to 35 U.S.C. §271.

49.     Defendant has committed these acts of infringement without license or authorization.

50.     As a result of Defendant's infringement of the '980 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

51.     Plaintiff will continue to suffer damages in the future unless Defendant's infringing activities are enjoined by this Court.  As such, Plaintiff is entitled to compensation for any continuing and/or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement.

52.     Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint.  The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

## DEMAND FOR JURY TRIAL

53. Plaintiff demands a trial by jury of any and all causes of action.

## PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

a.   That Defendant be adjudged to have directly infringed the '980 Patent either literally or under the doctrine of equivalents;

b.   An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;

c.   That Defendant, its officers, directors, agents, servants, employees, attorneys, affiliates, divisions, branches, parents, and those persons in active concert or participation with any of them, be permanently restrained and enjoined from directly infringing the '980 Patent;

d.   An award of damages pursuant to 35 U.S.C. §284 sufficient to compensate Plaintiff for the Defendant's past infringement and any continuing or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement, including compensatory damages;

e.   An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;

f.   That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and

g.   That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: March 12, 2020

Respectfully submitted,

/s/ Howard L. Wernow
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*Board Certified in Intellectual Property*
*Law by the Florida Bar*

ATTORNEY FOR PLAINTIFF
BLUEPRINT IP SOLUTIONS LLC

## <u>CERTIFICATE OF SERVICE</u>

The undersigned hereby certifies that a true and correct copy has been electronically filed using the CM/ECF filing system, which automatically sends email notifications to all counsel of record and which will permit viewing and downloading of same from the CM/ECF system on March 12, 2020.

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*/s/ Howard L. Wernow*
Howard L. Wernow

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