

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

KAAVO INC.)	
)	
Plaintiff,)	
)	Civil Action No. 2:17-cv-484
v.)	
)	JURY TRIAL DEMANDED
FUJITSU AMERICA, INC.)	
)	
Defendant.)	
_____)	

COMPLAINT

For its Complaint, Plaintiff Kaavo Inc. ("Kaavo"), by and through the undersigned counsel, alleges as follows:

THE PARTIES

1. Kaavo is a Delaware corporation with a place of business at 9600 Great Hills Trail, Suite 150W, Austin, Texas 78759.
2. Defendant Fujitsu America, Inc. ("Defendant") is a California corporation with, upon information and belief, a place of business located at 1250 East Arques Avenue, Sunnyvale, California 94085.
3. Upon information and belief, Defendant has registered with the Texas Secretary of State to conduct business in Texas.
4. By registering to conduct business in Texas, Defendant has a permanent and continuous presence in Texas.
5. Upon information and belief, Defendant has an office in Collin County where it regularly conducts business.

6. Thus, Defendant has a regular and established place of business in the Eastern District of Texas.

7. On April 11, 2017, Defendant issued a press release that states: "Fujitsu America, Inc. today announced it is offering secure and reliable global connectivity through its FUJITSU Cloud Service K5 to customers of CyrusOne (NASDAQ: CONE), a premier global data center REIT, across the United States, Europe, and Asia. K5 is currently hosted at CyrusOne's advanced, highly secure Carrollton, Texas data center." <http://www.fujitsu.com/us/about/resources/news/press-releases/2017/fai-20170411.html> (last accessed June 6, 2017).

8. Upon information and belief, the location in Carrollton, Texas where Fujitsu Cloud Service K5 is hosted is in the Eastern District of Texas.

JURISDICTION AND VENUE

9. This action arises under the Patent Act, 35 U.S.C. § 1 *et seq.*

10. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338.

11. Upon information and belief, Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (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 this district.

BACKGROUND

12. On May 26, 2015, United States Patent No. 9,043,751 (the "'751 patent"), entitled "Methods and Devices for Managing a Cloud Computing Environment," was duly and lawfully

issued by the U.S. Patent and Trademark Office. A true and correct copy of the '751 patent is attached hereto as Exhibit A.

13. Kaavo is the assignee and owner of the right, title and interest in and to the '751 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

14. Kaavo is a cloud computing company that has invested substantial resources into the development and sale of software for automating the deployment and management of applications, workloads, and IT environments across public, private, and hybrid clouds.

15. Kaavo was founded in 2007 by enterprise IT veterans with experience in delivering and managing mission critical IT applications and business services. In recognition of its groundbreaking technological developments in the field of cloud computing, Kaavo has received accolades from leading industry sources such as Gartner, TechTarget, and InformationWeek.

16. Kaavo has invested a significant amount of financial and intellectual capital into the development of pioneering technologies such as the methods and devices for managing a cloud computing environment that are disclosed in the '751 patent.

17. Indeed, Kaavo's IMOD product currently utilizes the technology covered by the '751 patent.

18. As third parties, such as Defendant, began using and offering to customers Kaavo's patented technology related to managing cloud computing environments without Kaavo's authorization or permission, Kaavo's business suffered through at least the loss of sales resulting from the violation of Kaavo's right to exclude others from using its patented technology.

19. The technologies recited in the claims of the '751 patent provide inventive concepts and do not claim an abstract idea. The inventive concepts of the '751 patent greatly enhance and facilitate the operation of cloud management computer systems through use of hardware and software. For example, software is deployed according to strict deployment rules based on provided provisioning information and using optimal cloud resources, thus improving the functioning of a cloud management computer system. Ex. A. at col. 14, ll. 9-13.

20. A key and inventive component of the '751 patent is the claimed management system, methods, and devices for managing a cloud computing environment for use by a software application to ensure reliability and optimal performance.

21. The technology claimed in the '751 patent does not preempt all ways for setting up and managing a computer environment. For example, the claims apply only to a specific type of computer environment: cloud computing. Further, independent claims, such as claims 11, 15 and 18, require making available to a software application, through provisioning information comprising types of servers to launch in each tier, geographic data, security requirement data, pricing preference data, and versioning data, two or more tiers of a cloud environment configurations based on an initialization event, and sending software application data to cause the software application to begin execution in the available tiers of the cloud computing environment. Other independent claims, such as claims 1, 5 and 8 require making available to a software application, through provisioning information comprising types of servers to launch in each tier, geographic data, security requirement data, pricing preference data, and versioning data, an N-tier cloud environment configuration to be made available to a software application, wherein the cloud environment comprises a plurality of distinct cloud configurations, each cloud configuration provided by a unique cloud provider, based on an initialization event, and sending

software application data to cause the software application to begin execution in the available tiers of the cloud computing environment. Applications running in a cloud environment need not be managed in these ways. For example, numerous combinations of provisioning information exist that may be used to initialize two or more tiers of a cloud environment configuration, such as one or more – but not all – of types of servers to launch in each tier, geographic data, security requirement data, pricing preference data, and versioning data.

22. Defendant can set up and manage computer environments without infringing the '751 patent. For example, the prior art cited on the face of the '751 patent, including, but not limited to, U.S. Published Patent Application No. 2007/0233698, entitled "Distributed Computing System Having Autonomic Deployment of Virtual Machine Disk Images" and U.S. Published Patent Application No. 2010/0042670, entitled "Integrated Development Engine for a Cloud Computing Environment," remains available for practice by the Defendant, and the '751 patent claims do not preempt practice of those prior art methods.

23. The '751 patent claims cannot be practiced by a human alone and there exists no human analogue to the methods claimed in the '751 patent. The claims are specifically directed to management of a cloud computing environment – a thing that exists only in the context of computers.

24. The dependent claims of the '751 patent add additional limitations demonstrating that they are also not directed to any abstract ideas, contain inventive concepts, and do not preempt all ways of setting up and managing computer environments. Defendant can set up and manage computer environments without infringing any of these claims.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 9,043,751

25. Kaavo repeats and realleges the allegations of paragraphs 1 through 24 as if fully

set forth herein.

26. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant has infringed and continues to infringe the '751 patent by making, using, importing, offering for sale, and/or selling methods and systems for initializing and managing a cloud computing environment for use by a software application, including, but not limited to Fujitsu Cloud Service K5 ("KS5"), which are covered by one or more claims of the '751 patent, such as, but not limited to, claim 11.

27. More specifically, K5 is a non-transitory computer readable medium having computer usable program code executable to perform operations. It sends, by a computer system, an initialization event based on provisioning information in a single file, the initialization event causing two or more tiers of a cloud environment configuration to be made available to a software application.

5.4 Using a Template

5.4.1 Creating a Stack and Displaying the Stack Details

You can deploy virtual resources in bulk by using a template in the YAML format. The set of virtual resources that are deployed using the template can be managed as a stack.

FUJITSU Cloud Service K5 IaaS: Service Portal User Guide ("User Guide") at p. 53 (available at <https://www.fujitsu.com/dz/Images/k5-iaas-service-portal-user-guide.pdf> (last accessed June 6, 2017)).

5.4 Example AutoScale Heat template (Windows)

- autoscaling_windows.yaml

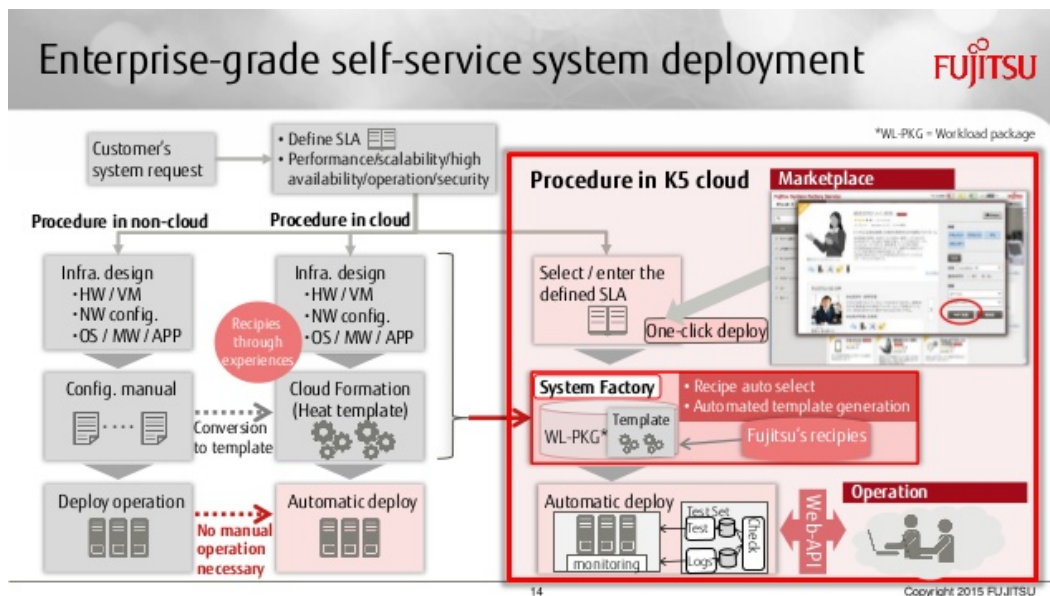
The following is an example template for AutoScale (Windows).

```
heat_template_version: 2013-05-23

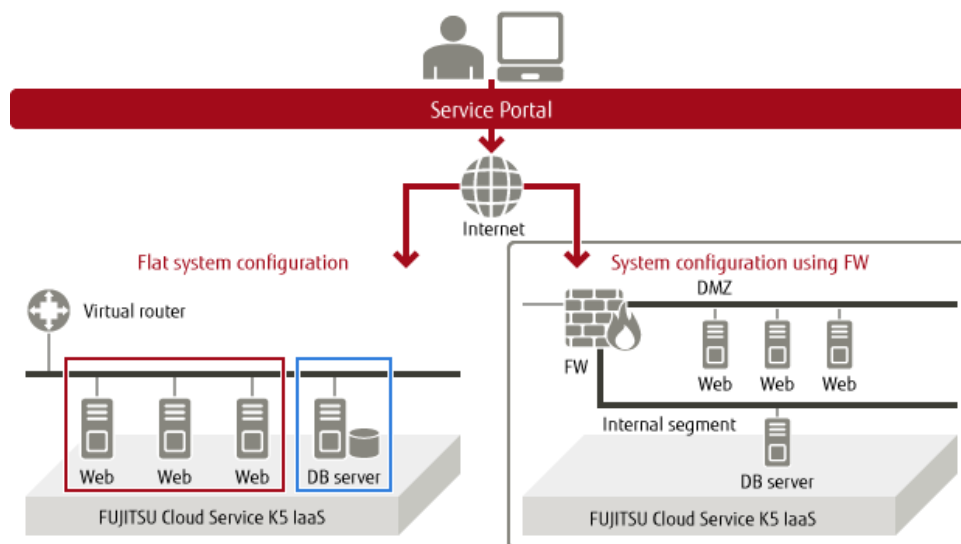
description:
  Autoscaling Windows

parameters:
  az:
    type: string
    default: jp-east-1a
  param_image_id:
    type: string
    default: 5ab16551-c229-4611-834b-a16e074c187e
  param_flavor:
    type: string
    default: (The server type of the virtual server.)
  autoscale_security_group_name:
    type: comma delimited list
    default: (Any security group name)
  autoscale_security_group_id:
    type: comma delimited list
    default: (Any security group ID)
  autoscale_subnet_id:
    type: comma delimited list
    default: (Any subnet ID)
  autoscale_elb_name:
    type: string
    default: m0918WinELB1
```

Fujitsu Cloud Service K5 IaaS: Heat Template Specifications ("Template") at pp. 102-03 (available at <https://k5-doc.jp-east-1.paas.cloud.global.fujitsu.com/doc/en/iaas/document/k5-iaas-heat-template.pdf> (last accessed June 6, 2017)).




Fujitsu Forum at slide 15 (available at <https://www.slideshare.net/FujitsuTS/cloud-dilemma-which-cloud-is-right-for-you> (last accessed May 22, 2017)).




<http://www.fujitsu.com/global/solutions/cloud/k5/overview/#section3> (last accessed June 6, 2017).

UPLOADING A CUSTOM IMAGE TO FUJITSU K5 UK BASED PUBLIC CLOUD

 **Graham Land**  July 29, 2016

 **No comments**

 0 Likes


NOTE: All images must be uploaded to the Default Project in your contract (name ends with -prj). Once uploaded to the default project, the image can be shared with the other projects within the contract (domain).


As with all public clouds, Fujitsu's K5 OpenStack based cloud provides several default images from RedHat, CentOS, Ubuntu and Microsoft to facilitate rapid server deployments out of the box.


However, often customers have already built their own OS vendor images with bespoke applications or corporate compliance baked in. These images simply need to be made "cloud ready" by ensuring that they are capable of running on the target hypervisor and have the cloud-init software configured. The image prep process is not covered here.

<http://www.k5developercenter.com/uploading-a-custom-image-to-fujitsu-k5-uk-based-public-cloud> (last accessed June 6, 2017). It subsequently sends, by the computer system, software application data to the cloud environment configuration, which, upon receipt, causes the software application to begin execution in the available tiers of the cloud environment configuration.

UPLOADING A CUSTOM IMAGE TO FUJITSU K5 UK BASED PUBLIC CLOUD

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NOTE: All images must be uploaded to the Default Project in your contract (name ends with -prj). Once uploaded to the default project, the image can be shared with the other projects within the contract (domain).

As with all public clouds, Fujitsu's K5 OpenStack based cloud provides several default images from RedHat, CentOS, Ubuntu and Microsoft to facilitate rapid server deployments out of the box.

However, often customers have already built their own OS vendor images with bespoke applications or corporate compliance baked in. These images simply need to be made "cloud ready" by ensuring that they are capable of running on the target hypervisor and have the cloud-init software configured. The image prep process is not covered here.

Id. The provisioning information comprises types of servers to launch in each tier, geographic data, security requirement data, pricing preference data, and versioning data.

5.4 Example AutoScale Heat template (Windows)

- autoscaling_windows.yaml

The following is an example template for AutoScale (Windows).

```
heat_template_version: 2013-05-23

description:
  Autoscaling Windows

parameters:
  az:
    type: string
    default: jp-east-1a
  param_image_id:
    type: string
    default: 5ab16551-c229-4611-834b-a16e074c187e
  param_flavor:
    type: string
    default: (The server type of the virtual server.)
  autoscale_security_group_name:
    type: comma delimited list
    default: (Any security group name)
  autoscale_security_group_id:
    type: comma delimited list
    default: (Any security group ID)
  autoscale_subnet_id:
    type: comma delimited list
    default: (Any subnet ID)
  autoscale_elb_name:
    type: string
    default: m0918WinELB1
```

Template at pp. 102-03.

4.1.7.2.1 Properties

4.1.7.2.1.1 Basic parameters

Parameter	Description	Type	Mandatory	Constraints/default value	Remarks
flavor	List ID of the predefined hardware resource	String	Y		Specifies the flavor ID. The flavor ID can be retrieved by using the get flavor list (GET /v1.0/{tenantId}/flavors) and get flavor information (GET /v1.0/{tenantId}/flavors/{flavorId}) APIs

Id. at 93.

subnet_group_id	Subnet group where the DB instance will be deployed to	String	Y	*Only subnets with DHCP ON can be specified	It is necessary to have a set of subnets that include at least two availability zones The specifiable values can be retrieved using the get DB subnet group list API (GET /v1.0/{tenantId}/subnetgroups)
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Id.

Measure cloud resources

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UPDATED: 2017-05-22 11:46

Contents

Telemetry measures cloud resources in OpenStack. It collects data related to billing. Currently, this metering service is available through only the **ceilometer** command-line client.

<https://docs.openstack.org/user-guide/cli-ceilometer.html#> (last accessed June 6, 2017).

A.2 Telemetry

Resource Types	Properties	Mandatory	Updateable
OS::Ceilometer::Alarm	meter_name	Y	
	alarm_actions		Y
	ok_actions		Y
	description		Y
	matching_metadata		
	evaluation_periods		Y
	statistic		Y
	enabled		Y
	period		Y
	insufficient_data_actions		Y
	repeat_actions		Y
	threshold	Y	Y
	comparison_operator		Y
OS::Ceilometer::CombinationAlarm	alarm_actions		Y
	ok_actions		Y
	description		Y
	enabled		Y
	alarm_ids	Y	Y
	insufficient_data_actions		Y
	repeat_actions		Y
	operator		Y

Template at p. 112.

28. Kaavo is entitled to recover from Defendant the damages sustained by Kaavo as a result of Defendant's infringement of the '751 patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

29. Defendant's use of Kaavo's patented technology to build and profit from its own cloud computing businesses has caused, is causing and will continue to cause Kaavo irreparable harm unless enjoined by this Court.

JURY DEMAND

Kaavo hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Kaavo requests that this Court enter judgment against Defendant as

follows:

- A. An adjudication that Defendant has infringed the '751 patent;
- B. A permanent injunction enjoining Defendant and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with it, from making, using, offering to sell, or selling in the United States or importing into the United States any devices, methods or systems that infringe any claim of the '751 patent, or contributing to or inducing the same by others;
- C. An award of damages to be paid by Defendant adequate to compensate Kaavo for Defendant's past infringement of the '751 patent and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- D. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Kaavo's reasonable attorneys' fees; and
- E. An award to Kaavo of such further relief at law or in equity as the Court deems just and proper.

Dated: June 7, 2017

STAMOULIS & WEINBLATT LLC

/s/ Richard C. Weinblatt

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