505730736 10/18/2019 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5777547

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY	DATA		
		Name	Execution Date
VCE COMPANY, LLC			09/06/2016
RECEIVING PARTY D	ΑΤΑ		
Name:	VCE IP	HOLDING COMPANY LLC	
Street Address:	1500 N.	GREENVILLE AVENUE	
City:	RICHAF	RDSON	
State/Country:	TEXAS		
Postal Code:	75081		
PROPERTY NUMBER	S Total: 1		
Property Type		Number	
Application Number:		16547179	
		the a mail address first, if the	
Fax Number: <i>Correspondence will using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2:	be sent to f provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro(POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300	
Fax Number: <i>Correspondence will</i> <i>using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4:	be sent to if provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro(POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300 DENVER, COLORADO 80202	l be sent via US Mail.
Fax Number: <i>Correspondence will</i> <i>using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N	be sent to f provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro0 POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300 DENVER, COLORADO 80202	l be sent via US Mail.
Fax Number: Correspondence will using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 2: Address Line 4:	be sent to f provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro(POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300 DENVER, COLORADO 80202 075125-633773 JANAE ALLABASTRO	<i>I be sent via US Mail.</i> @polsinelli.com
Fax Number: <i>Correspondence will using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 2: Address Line 4: TTORNEY DOCKET N IAME OF SUBMITTER	be sent to f provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro(POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300 DENVER, COLORADO 80202 075125-633773 JANAE ALLABASTRO /Janae Allabastro for Greg	<i>I be sent via US Mail.</i> @polsinelli.com
Fax Number: <i>Correspondence will</i> <i>using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N	be sent to f provided	<i>; if that is unsuccessful, it will</i> 7209318133 uspt@polsinelli.com, jallabastro(POLSINELLI PC 1401 LAWRENCE STREET SUITE 2300 DENVER, COLORADO 80202 075125-633773 JANAE ALLABASTRO	<i>I be sent via US Mail.</i> @polsinelli.com

source=VCE Inter-Corp Assignment#page6.tif source=VCE Inter-Corp Assignment#page7.tif source=VCE Inter-Corp Assignment#page8.tif source=VCE Inter-Corp Assignment#page9.tif source=VCE Inter-Corp Assignment#page10.tif

PATENT ASSIGNMENT AGREEMENT

THIS PATENT ASSIGNMENT AGREEMENT ("Assignment") is made as of September 6, 2016 by and between VCE Company, LLC, a Delaware limited liability company, with its principal place of business at 1500 N. Greenville Avenue, Suite 1100, Richardson, TX 75081 ("Assignor") and VCE IP Holding Company LLC, a Delaware limited liability company, with its principal place of business at 1500 N. Greenville Avenue, Suite 1100, Richardson, TX 75081 ("Assignee"), each individually referred to as a "Party" and collectively referred to as "Parties."

WHEREAS, Assignor and Assignee are parties to the License Agreement effective as of the Effective Date between Assignor and Assignee ("Patent License");

WHEREAS, Assignor owns certain United States and foreign patents and patent applications, including which are listed on attached <u>Schedule 1</u>; and

WHEREAS, Assignee desires to receive from Assignor assignments to the Assigned Patents;

NOW THEREFORE, for good and valuable consideration, Assignor hereby assigns to Assignee, all of Assignor's entire right, title and interest, including the right to sue for and collect past damages and any other remedies, in and to all United States and foreign patents and patent applications owned by Assignor, including but not limited to those listed on attached <u>Schedule 1</u> (the "Assigned Patents"), and any and all reissue, substitutions, division, continuation patents and re-examination certificates based on any of the foregoing patents or patent applications, and all pending applications therefor, which claim priority from any application from which Assigned Patents are derived, as well as, all foreign counterparts of Assigned Patents. Notwithstanding anything to the contrary herein, if and to the extent there are any immaterial transcription, typographical or other similar errors in the information provided on Schedule 1, any such errors shall not affect the assignment of the Assigned Patents hereunder.

Assignor hereby authorizes the Commissioner of Patents and Trademarks of the United States Patent and Trademark Office, and the empowered officials of any other applicable offices, authorities, authorized agents, and governments to issue or transfer all said Assigned Patents to Assignee, as assignee thereof, or otherwise as Assignee may direct.

Assignor hereby agrees to execute all documents and take all other actions as may be necessary to effect the assignments and transfers set forth in this Assignment.

Without limiting the foregoing, during the term of the License Agreement, the Parties hereby agree that Assignee shall be the beneficial and record owner of any and all patents and patent applications claiming inventions made by or on behalf of Assignor, and Assignor shall and hereby does assign and transfer to Assignee all of its rights, title and interest in and to such inventions, and the Parties shall reasonably cooperate with respect to Assignee filing for patent applications claiming such inventions in its own name, in each case notwithstanding anything to the contrary in employee invention assignment agreements or similar agreements entered into by Assignor, it being understood and agreed that any such applications, and any patents issuing therefrom, shall be subject to the terms and conditions of the License Agreement.

[Signature Page Follows]

PATENT REEL: 050763 FRAME: 0831 Signed by Assignor and Assignee on the date first written above:

VCE COMPANY, LLC

As Assignor

By:

Name: Todd Pavone Title: Chief Operating Officer

VCE IP HOLDING COMPANY LLC By its sole member, VCE Company, LLC

As Assignee

By:

Name: Todd Pavone Title: Chief Operating Officer

COMMONWEALTH OF MASSACHUSETTS)
Subscribed and sworn to before me on this day of 2016

Notary Public Commission Expires:

Signature Page to Patent Assignment Agreement

PATENT REEL: 050763 FRAME: 0832

SCHEDULE 1 TO PATENT ASSIGNMENT AGREEMENT

ASSIGNED PATENTS

UNITED STATES

TITLE	<u>APP. NO.</u>	REG. NO.	<u>OWNER</u>
Automatic Monitoring & Just-in-Time Resource Provisioning System	13538910	9251033	VCE
Personas in Application Lifecycle Management	13538466	9363270	VCE
Unified Application Capacity Measurement & Operation on a Converged Infrastructure	13570683	8990807	VCE
Application Dependent DC Integration	13597104	9075664	VCE
Fast Path Factory Reset	13597150	9170845	VCE
Java Power Shell Message Queue	13738673	8904388	VCE
Virtual Template Service	13743224	9304793	VCE
Automated Configuration Mgmt. for Converged System	13729488	9065746	VCE
Obtaining Customer Support for Electronic System Using First and Second Cameras	14015357	9007465	VCE
Component Discovery Using Protocol-Specific Drivers	13731869	9083625	VCE
Intelligent Virtual Image Processor (IVIP) for Managing Virtual Images during Software Lifecycle and Beyond. Intelligent Virtual Image Processor (IVIP) for	13959008	9256509	VCE
Managing Virtual Images during Software Lifecycle and Beyond.	13959017	9342784	VCE
Automated Documentation Generation for Manual Remediation of Converged Infrastructure	14144025	9389991	VCE
Workflow Credential Mgmt. in a Converged Infrastructure	14145240	9325688	VCE
Abstracted and Distributed RBAC Control Method for Disparate Heterogeneous Entities	14109594	9280646	VCE
A System that Carries Out Complete Workload Physical & Logical Resources Profiling Analysis & Behavioral Prediction	14257225	9342349	VCE
GPS for Applications in Converged Infrastructure	14509387	9386042	VCE
Automation of De-dupe Storage Capacity Sizing	14557045		VCE

And Trending Analysis		
Data Protection Tiering	14574124	VCE
Packaged Application Delivery for Converged		
Infrastructure	13597125	VCE
A Method to Self-Manage Snapshots for Virtual		
Desktops w Centralized Portal	13786047	VCE
A Method to Embed Snapshot Mgmt. in to		
Virtual Machines	13786070	VCE
Machine Learning for Converged Infrastructure	14104423	VCE
Automated Configuration Mgmt. for Converged		
System	14715017	VCE
COMBINING DATA AND VIDEO		
COMMUNICATION FOR CUSTOMER		
SUPPORT OF ELECTRONIC SYSTEM	14015324	VCE
ACCESSING MULTIPLE CONVERGED IT		
INFRASTRUCTURES	13843262	VCE
MANAGING CONVERGED IT		
INFRASTRUCTURE WITH GENERIC		
OBJECT INSTANCES	13731337	VCE
Virtual Appliance Deployer	14078233	VCE
Capabilities API	14085549	VCE
Virtual Appliance Manager	14078300	VCE
Converged Infrastructure Straps	14079561	VCE
Large Scale vApp Deployment Using System		
Provisioning Tools	14134403	VCE
Optimized Shipping for Telephony Devices	14101186	VCE
System & Method to Manage a Group of		
Interrelated Devices in a Converged		
Infrastructure	14134958	VCE
Vision on a Stick	14088997	VCE
Converged Shell	14132565	VCE
Single Action for remediation across Converged	1+152505	VCL
Infrastructure	14143979	VCE
Scalable Input & Output Variable Rack Power	111103773	
Distribution Unit	14135095	VCE
Dynamic & Adaptive Programmatic Interface		
Selection (DAPIS)	14134543	VCE
APIs for Accessing Key Performance Indicator		
(KPI) Information	14137398	VCE
Overall Performance of Converged Infrastructure		
in Just One Single Metric. VPI (Vblock		
Performance Indicator)	14289019	VCE
Documentation Compiler Website Creator Excel		
Add-On	14109172	VCE

Vblock Automation & Scripting Tool (VAST)	14109350	VCE
Converged View for Physical & Virtual Data Ctr		
Infrastructures	14175445	VCE
Centralized Rotation & Mgmt. of Converged		
Infrastructure Credentials (Knights of Ni Idea		
Concept 2011)	14140845	VCE
Helper Resources for UI Clients	14219717	VCE
Scope Based System Mgmt.	14262072	VCE
Chassis Rail Stabilizer	14134739	VCE
Small System Equipment Carrier	14193060	VCE
vCO API for vCenter Storage Profile &		
Capabilities	14109754	VCE
Storage Tiering for Big Data Cloud		
Environments	14174577	VCE
A Method of Classifying and Tagging Datacenter		
Resources	14250928	VCE
Remote GPU Service	14293377	VCE
Dynamic Sizing in a MapReduce Cluster	14249098	VCE
A Method of Aggregating Storage Resources for		
Big Data Processing	14249148	VCE
A Method of Virtual Machine Storage		
Provisioning	14299846	VCE
Power Balancing Algorithm	14460695	VCE
Automatic Generation of an Elevation	14460677	VCE
Manual entry to an elevation	14460729	VCE
Network cabling plan generation	14460713	VCE
Workflow Execution Framework	14285525	VCE
Embedding Infrastructure Information on a vApp	14290733	VCE
Supply Chain Validation	14285022	VCE
Multiple Clip Assembly	14464375	VCE
Cloud Workload Deployment Optimization for		
Converged Infrastructure	14468767	VCE
Vblock Component Identification by Ethernet		
Frame	14467556	VCE
CSR1000 Vblock Reference Architecture	14481369	VCE
Framework to Alert Applications about		
Infrastructure Exceptions	14479050	VCE
Application Deployment Using a Mobile Device	14479028	VCE
Capacity Planning for Converged Infrastructure	14575532	VCE
CI Out-of-Box Provisioning through Modular		
Orchestration	14526045	VCE
Policies Based on Combinations of Atomic		
Constraints	14548230	VCE

Port Assignment Reference Template	14521789	VCE
Locking & Synchronization Service for Scripts	14537437	VCE
Automation Optimization in a Command Line		
Interface	14536447	VCE
Optimized Dynamic Matrixing of Software		
Environments for Application Test and Analysis	14539642	VCE
Converged Infrastructure Logical Build		
Optimization	14536448	VCE
Shippable VMWave Site Recovery Manager's		
Recovery Plan	14553367	VCE
Programmatic determination for workload		
placement on disparate systems based on policy	14576664	VCE
Interface for creation and management of		
networks and compute policies in a multi-tenant		
environment with capability recognition support	14577149	VCE
Method of predictive display of cloud offerings		
based on real time infrastructure data		
configurations	14579258	VCE
Policy for multi-tenancy using containers	14587847	VCE
Method and apparatus for logical remediation		
and initialization of non-quantified converged		
infrastructure systems to achieve quantified		
baseline converged infrastructure systems	14573544	VCE
Method of predictive display of cloud offerings		
based on real time infrastructure data	14597024	VOE
configurations	14587924	VCE
"Vision Favorites (vFavs)"	14572281	VCE
Application Centric Compliance	14580574	VCE
Data Protection Mobility	14584139	VCE
Method to normalize service offerings data to		
enable policy based comparisons among		
disparate and multiple cloud end points in a		
market place	14587974	VCE
Authorization Router	14575716	VCE
An method to dynamically determine projected		
time period before more capacity is required	14588021	VCE
Free Form Search	14581228	VCE
Programmable Component Data Service	14978050	VCE
A Cloud Management Social Sharing System	14631218	VCE
A Cloud Management Optimization Mechanism	-	
and System Leveraging Admin User Activities	14626629	VCE
A method of Dynamically Selecting Provisioning		
Software	14668751	VCE
A Method of Ordering Script Execution	14665836	VCE

Geographic Redundancy as a Service	14626358	VCE
Automated Infrastructure Orchestration Layer		
Provisioning	14671389	VCE
Application Driven Anything as a Service		
Architecture	14710080	VCE
Presenting a converged infrastructure to a Cloud		
Portal	14719577	VCE
Pooling Resources from Any Cloud	14718902	VCE
Method and Apparatus of a command line based		
Action Target Framework (ATF) for Datacenter		
Management	14703696	VCE
Automated Ad-Hoc CI Configuration Backup		
System	14709103	VCE
An architecture for policy driven storage		
throughput control in a hyper-convergence data		
center	14717797	VCE
A method of aggregating logs for Converged		
Infrastructure	14723006	VCE
Corporate Driven Resource Allocation	14919789	VCE
C220C240 Server Adapter Block	14727370	VCE
Resource Pool Management Portal and SDK	14719006	VCE
Panorama Cloud	14731820	VCE
Avoid Version Conflict for Orchestrator Items	14801363	VCE
Generic Source Control for Orchestration		
Workflows	14827122	VCE
ORU Server Support Bracket	14740207	VCE
Test Framework for Orchestration	14841145	VCE
Recognition Rules Engine	14825074	VCE
Personality enabled multiple concurrent rules	14825085	VCE
Validation component abstraction	14825094	VCE
Automatic self-correction in a configuration		
compliance computing environment	14825101	VCE
Software Defined Compliance: System and		
method by which to automatically access and tag		
discovered entities	14852970	VCE
Correlation of element events at query time	14802645	VCE
Resource identification for application		
deployment	14843871	VCE
Incremental sub-graph clusters for time-invariant		
multi-domain correlation	14802733	VCE
Converged Infrastructure tenant foot-print	14947306	VCE
Search driven attachment of semi-structured		
content that itself becomes searchable	14802785	VCE

Computing pro defined aggregations against an		
Computing pre-defined aggregations against an ad-hoc input set	14802830	VCE
L	14843808	VCE VCE
Self-Optimizing Configuration Architecture		
Meta data driven collection framework	14801485	VCE
A method to detect and deploy server chassis and		
rack level fault tolerance for storage resources in	14012516	VCE
a hyper converged system	14813516	VCE
An integrated computing system validation and	14925105	VCE
compliance management system	14825105	VCE
Equipment Carrier Cradle System	14931447	VCE
Power Box Conversion Concept	14932306	VCE
Eliminating default credentials	14942332	VCE
A method to optimize resource pools in a		
software defined storage system.	14919917	VCE
Assisted Converged Infrastructure Management		
in a cluster of VCE Systems	14956376	VCE
A method of injecting a task to a workflow		
dynamically	14947413	VCE
Workload genealogy and clustering with		
machine learning algorithms for Converged		
Infrastructure	14915514	VCE
Design Element Schema including dynamically		
determination of product alignment based on		
object corpus evaluated at run time	14986278	VCE
Triggers - Run Time Object Corpus evaluation		
Self-Healing Enforcement Dynamic and Multi-		
level	14986297	VCE
Polymorphic behavior	14986320	VCE
Structured technique for importing maintaining		
new vendor products for use in products sold by		
provider	14986356	VCE
Real Time guidance – polymorphic object		
behavior	14986372	VCE
Dynamic Iterative state free wizards	14986400	VCE
Troubleshooting Converged Infrastructure using		
Resource Chains and Machine Learning	14984692	VCE
Event Driven Framework for CI management	14986269	VCE
Dynamic template provisioning for Converged		
Infrastructure Management	15057451	VCE
Third Party Management Threat Analysis and		
Risk Mitigation	15209580	VCE
integrated configuration implemented by		
multiple chained wizards	15082570	VCE
Generation and persistence of network data for	15191087	VCE

simulation		
System for Randomized Network Simulation	15191080	VCE
VCE Custom Brackets for Cisco ASR-1004	15218480	VCE
USB 3.1 Type-C Service Port and 10Gbps		
Network port for VMAXVNXDSSDVPLEX		
Data Domain	15233358	VCE

<u>NON-US</u>

COUNTRY	TITLE	APP. DATE	APP. NO.	<u>OWNER</u>
	Integrated Computing Platform			
	Deployed in an Existing Computing			
Australia	Environment	12-Feb-15	2013308873	VCE
	Integrated Computing Platform			
EPO	Deployed in an Existing Computing Environment	4-Mar-15		VCE
ErO	Integrated Computing Platform	4-1/181-15		VCE
	Deployed in an Existing Computing			
China	Environment	28-Apr-15	CN201380056418.8	VCE
	Integrated Computing Platform			
	Deployed in an Existing Computing			
Japan	Environment			VCE
PCT	Virtual Template Service	13-Jan-14	PCT/US2014/011332	VCE
Australia	Virtual Template Service	18-Jun-15	AU 2014207721	VCE
China	Virtual Template Service	13-Jul-15		VCE
EPO	Virtual Template Service	26-Jun-15	EP 14702156.2	VCE
Japan	Virtual Template Service	29-Jun-15		VCE
	Compliance Testing Engine for			
Australia	Integrated Computing System	17-Feb-15		VCE
	Compliance Testing Engine for			
Canada	Integrated Computing System	21-Feb-15		VCE
	Compliance Testing Engine for			
China	Integrated Computing System	24-Apr-15		VCE
	Compliance Testing Engine for		13766733.3 -	
EPO	Integrated Computing System	23-Aug-13	EP2888665	VCE
	Compliance Testing Engine for			
Japan	Integrated Computing System	24-Feb-15	2015 - 528695	VCE
	ACCESSING MULTIPLE			
	CONVERGED IT			
Australia	INFRASTRUCTURES	27-Aug-15	AU 2014237655	VCE

	ACCESSING MULTIPLE			
	CONVERGED IT			
EPO	INFRASTRUCTURES	4-Sep-15	14714051.1	VCE
	Managing Converged IT	•		
	Infrastructure with Generic Object			
Australia	Instances	17-Feb-15	AU 2013305596	VCE
	Managing Converged IT			
	Infrastructure with Generic Object			
Canada	Instances	23-Feb-15	2,882,660	VCE
	Managing Converged IT			
C1 :	Infrastructure with Generic Object	24 4 15	2012000550152	MOL
China	Instances	24-Apr-15	2013800558153	VCE
	Managing Converged IT Infrastructure with Generic Object		12762242 5	
EPO	Instances		13763343.5 - EP2888836	VCE
	Managing Converged IT		LF 2000030	VCE
	Infrastructure with Generic Object			
Japan	Instances	24-Feb-15	2015 - 528697	VCE
PCT	Converged Shell	20-Nov-14	PCT/US14/66603	VCE
	Single Action for remediation across			
РСТ	Converged Infrastructure	22-Jul-14	PCT/US2014/047585	VCE
	Scalable, Input & Output Variable			
РСТ	Rack Power Distribution Unit	12/15/2014	PCT/US2014/070381	VCE
101	A System that Carries Out Complete	12/13/2014	101/052014/070501	, CL
	Workload Physical & Logical			
	Resources Profiling, Analysis &			
PCT	Behavioral Prediction	26-Mar-15	PCT/US2015/022644	VCE
	Converged View for Physical &			
PCT	Virtual Data Ctr Infrastructures	29-Jan-15	PCT/US2015/013579	VCE
РСТ	Automatic Generation of an Elevation	31-Jul-15	PCT/US2015/043253	VCE
РСТ	Network cabling plan generation	31-Jul-15	PCT/US2015/043265	VCE
РСТ	Supply Chain Validation	18-Mar-15	PCT/US15/21193	VCE
	Workload genealogy and clustering			
	with machine learning algorithms for			
PCT	Converged Infrastructure	14-Dec-15		VCE

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