PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5295465

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
CIRCADENCE CORPORATION	12/20/2018

RECEIVING PARTY DATA

Name:	RUNWAY GROWTH CREDIT FUND INC.
Street Address:	205 N. MICHIGAN AVENUE, SUITE 4200
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60601

PROPERTY NUMBERS Total: 48

Property Type	Number
Patent Number:	7975066
Patent Number:	8065399
Patent Number:	8024481
Patent Number:	8195823
Patent Number:	RE45009
Patent Number:	8510468
Patent Number:	7450495
Patent Number:	7330435
Patent Number:	7257081
Patent Number:	7120120
Patent Number:	6836465
Patent Number:	7525920
Patent Number:	8218447
Patent Number:	7962654
Patent Number:	7043563
Patent Number:	7020783
Patent Number:	6990531
Patent Number:	7155539
Patent Number:	7120662
Patent Number:	7143195

PATENT REEL: 047973 FRAME: 0029

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Property Type	Number
Patent Number:	7111006
Patent Number:	7127518
Patent Number:	8463935
Patent Number:	8417770
Patent Number:	8386641
Patent Number:	8977711
Patent Number:	8898340
Patent Number:	8977712
Patent Number:	9148293
Patent Number:	9380129
Patent Number:	8996705
Patent Number:	9432296
Patent Number:	9185185
Patent Number:	9578124
Patent Number:	10056005
Patent Number:	9436542
Patent Number:	9723105
Patent Number:	9923987
Application Number:	15466833
Patent Number:	10033840
Application Number:	15664763
Application Number:	16109430
Application Number:	62574637
Application Number:	15924544
Application Number:	16163954
Application Number:	16172276
Application Number:	16042415
Application Number:	16056892

CORRESPONDENCE DATA

Fax Number: (415)693-2222

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 4156932000

Email: crhem@cooley.com

Correspondent Name: COOLEY LLP

Address Line 1: 101 CALIFORNIA STREET, 5TH FLOOR
Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER: 326420-118

NAME OF SUBMITTER:	C. RHEM
SIGNATURE:	/CR/
DATE SIGNED:	12/20/2018

Total Attachments: 12

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, restated, supplemented or otherwise modified from time to time, this "Agreement") is entered into as of December 20, 2018, among CIRCADENCE CORPORATION, a Delaware corporation, ("Grantor") and RUNWAY GROWTH CREDIT FUND INC., as collateral agent for Lenders (in such capacity, "Agent").

RECITALS

- A. Grantor, certain lenders from time to time party thereto (collectively "Lenders"), and Agent, as administrative agent and collateral agent for lenders, are entering into a Loan and Security Agreement as of the date hereof (as amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement"). Defined terms used herein without definition shall have the meanings set forth in the Loan Agreement.
- The Obligations are secured by the Collateral, as defined in the Loan Agreement, including without limitation, all of Grantor's Intellectual Property.
- C. Grantor's execution and delivery of this Agreement is a condition to the effectiveness of the Loan Agreement.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, Grantor and Agent hereby agree:

AGREEMENT

- 1. To secure the Obligations, Grantor grants Agent a security interest in all of Grantor's right, title and interest in its Intellectual Property. Grantor hereby confirms that the attached schedules of Grantor's copyright, patent and trademark applications and registrations, which are registered or filed with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, attached hereto as Exhibits A, B and C hereto, respectively, are complete and accurate as of the date hereof.
- Grantor hereby authorizes Agent to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property which Grantor obtains subsequent to the date of this Agreement, and (b) file a duplicate of this Agreement containing amended exhibits reflecting such new Intellectual Property. Agent shall notify Grantee at least 5 days before making any such modification and provide a copy thereof to Grantor.
- This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement. The words "execution," "signed," "signature" and words of like import shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act. Delivery of an executed counterpart of a signature page to this Agreement by electronic means including by email delivery of a ".pdf" format data file shall be effective as delivery of an original executed counterpart of this Agreement.
- This Agreement constitutes a Loan Document. Accordingly, it is subject to the provisions of Section 10 of the Loan Agreement, which are hereby incorporated herein by reference, *mutatis mutandis*.

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[SIGNATURE PAGE TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]

IN WITNESS WHEREOF, the undersigned have duly executed this Intellectual Property Security Agreement as of the first date written above.

Address of Grantor:	GRANTOR:
Circadence Corporation 1900 9 TH Street, Suite 300 Boulder, CO 80302 Attention: Executive Vice-President and General Counsel	CIRCADENCE CORPORATION By Name: Peter-Christian Olivo Title: Executive Vice President and General Counsel
Address of Agent:	AGENT:
205 N Michigan Ave., Suite 4200 Chicago, IL 60601	RUNWAY GROWTH CREDIT FUND INC.
Attention: Chief Financial Officer	Ву:
Email: tr@runwaygrowth.com	Name:
	Title:

[SIGNATURE PAGE TO INTELLECTUAL PROPERTY SECURITY AGREEMENT]

IN WITNESS WHEREOF, the undersigned have duly executed this Intellectual Property Security Agreement as of the first date written above.

Address of Grantor:	GRANTOR:
Circadence Corporation 1900 9 TM Street, Suite 300	CIRCADENCE CORPORATION
Boulder, CO 80302	₿v
Attention: Executive Vice-President and General	Name:
Counse!	Title:
Address of Agent:	AGENT:
205 N Michigan Ave., Suite 4200	RUNWAY GROWTH CREDIT FUND INC.
Chicago, IL 60601 Attention: Chief Financial Officer	
Email: ir@runwaygrowih.com	By: 1/1/
The second secon	Name: David Spreng
	Title: Chief Executive Officer

EXHIBIT A

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NONE.

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EXHIBIT B

PATENTS

OWNER	DESCRIPTION	APPLICATION/ PATENT NUMBER	APPLICATION/ ISSUE DATE
Circadence Corporation	System and Method for Implementing Application Functionality Within a Network Infrastructure	11/346,767 7,975,066	02/03/06 07/05/11
Circadence Corporation	Automated Network Infrastructure Test And Diagnostic System And Method Therefore	12/317,721 8,065,399	12/23/08 11/22/11
Circadence Corporation	System And Method For Reducing Traffic and Congestion on Distributed Interactive Simulation Networks	12/317,719 8,024,481	12/23/08 09/20/11
Circadence Corporation	Dynamic Network Link Acceleration	12/584,938 8,195,823	09/14/09 6/05/12
Circadence Corporation	Dynamic Network Link Acceleration	14/044,630 RE45009	10/02/13 07/08/14
Circadence Corporation	Route Aware Network Link Acceleration	12/853,467 8,510,468	08/10/10 08/13/13
Circadence Corporation	Method and System for Path Change Root-Cause Identification in Packet Networks	10/802,527 7,450,495	03/15/04 11/11/08
Circadence Corporation	Method and System for Topology Construction and Path Identification in a Routing Domain Operated According to a Link State Routing Protocol	10/077,245 7,330,435	02/15/02 02/12/08
Circadence Corporation	Method and System for Traffic Monitoring in a Packet Communication Network	10/126,310 7,257,081	04/19/02 08/14/07
Circadence Corporation	Method and System for Topology Construction and Path Identification in a Two-Level Routing Domain Operated According to a Simple Link State Routing Protocol	10/077,251 7,120,120	02/15/02 10/10/06

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Circadence Corporation	Method and System for Path	09/997,420	11/29/01
	Identification in Packet Networks	6,836,465	12/28/04
Circadence Corporation	Method and System for Path	10/895,156	07/20/04
	Identification in Packet Networks	7,525,920	04/28/09
Circadence Corporation	Method and System for Path	12/423,392	04/14/09
	Identification in Packet Networks	8,218,447	07/10/12
Circadence Corporation	Method and System for Topology Construction and Path Identification in a Two-Level Routing Domain Operated According to a Simple Link State Routing Protocol	EP02786767 EP1461882B	09/29/04 10/05/11
Circadence Corporation	System and Method for Implementing Application Functionality Within a Network Infrastructure	12/660,365 7,962,654	2/24/10 06/14/11
Circadence Corporation	Method and System for Redirection to Arbitrary Front-Ends in a Communication System	09/835,870 7,043,563	04/16/2001
Circadence Corporation	Method and System for Overcoming	09/835,938	04/16/2001
	Denial of Service Attacks	7,020,783	03/28/2006
Circadence Corporation	System and Method for Providing	09/835,871	04/16/2001
	Last-Mile Data Prioritization	6,990,531	01/24/2006
Circadence Corporation	Conductor Gateway Buffer	09/835,874	04/16/2001
	Prioritization	7,155,539	12/26/2006
Circadence Corporation	Conductor Gateway Prioritization	09/835,369	04/16/2001
	Parameters	7,120,662	10/10/2006
Circadence Corporation	HTTP Redirector	09/835,939 7,143,195	04/16/2001 11/28/2006
Circadence Corporation	System and Method for Providing Distributed Database Services	09/835,873 7,111,006	04/16/2001 09/19/2006
Circadence Corporation	System and Method for Implementing Application Functionality Within a Network Infrastructure	09/835,876 7,127,518	04/16/2001 10/24/2006

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Circadence Corporation	Data Packet Redirection System and Method Therefor	13/162,869 8,463,935	06/17/11 6/11/13
Circadence Corporation	Data Redirection System and Method Therefor	13/162,366 8,417,770	06/16/11 04/09/13
Circadence Corporation	System and Method for Implementing Application Functionality Within a Network Infrastructure	13/156,120 8,386,641	06/08/11 02/26/13
Circadence Corporation	System and Method for Implementing Application Functionality Within a Network Infrastructure Including Wirelessly Coupled Devices	13/288,636 8,977,711	11/3/11 03/10/15
Circadence Corporation	Dynamic Network Link Acceleration	13/486,347 8,898,340	06/01/12 11/25/14
Circadence Corporation	System and Method for Implementing Application Functionality within a Network Infrastructure Including a Wireless Communication Link	13/288,670 8,977,712	11/3/11 03/10/15
Circadence Corporation	Automated Network Infrastructure Test and Diagnostic System and Method Therefore	13/300,934 9,148,293	11/21/11 09/29/15
Circadence Corporation	Data Packet Redirection System and Method Therefor	13/857,817 9,380,129	04/05/13 06/28/16
Circadence Corporation	Optimization of Enhanced Network Links	61/803,657 14/219,299 8,996,705	03/20/13 03/19/14 03/31/15
Circadence Corporation	Systems and Methods for Initializing Packet Transfers	61/841,798 14/319,094 9,432,296	07/01/13 06/30/14 08/30/16
Circadence Corporation	System And Method For Implementing Application Functionality Within A Network Infrastructure Including Wirelessly Coupled Devices (QUIC1)	14/079,856 9,185,185	11/14/13 11/10/15

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Circadence Corporation	Optimization of Enhanced Network Links	14/672,425 9,578,124	03/30/15 02/21/2017
Circadence Corporation	Modular, Dynamic, Scenario-Based Training System, Apparatus and Method ("Ares I")	62/232,423 15/274,096 10,056,005	09/24/15 09/23/16 08/21/18
Circadence Corporation	Automated Network Infrastructure Test and Diagnostic System and Method Therefor	14/867,051 9,436,542	09/28/15 09/06/16
Circadence Corporation	System And Method For Implementing Application Functionality Within A Network Infrastructure	14/934,507 9,723,105	11/06/15 08/01/17
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I" – PCT)	PCT/US16/ 53430	09/23/16
Circadence Corporation	Optimization of Enhanced Network Links	15/435,281 9,923,987	02/16/17 03/20/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares II")	15/466,833	03/22/17
Circadence Corporation	System and Devices Facilitating Dynamic Network Link Acceleration	15/496,741 10,033,840	04/25/17 07/24/18
Circadence Corporation	System and Method For Implementing Application Functionality Within A Network Infrastructure	15/664,763	07/31/17
Circadence Corporation	System for Dynamically Provisioning Complete Cyber Training Environments ("Orion" and "Coliseum")	62/549,779 16/109,430	08/24/17 08/22/18
Circadence Corporation	Method and System for Creating Automated Cyber Penetration Testing Models ("Mars")	62/574,637	10/19/17
Circadence Corporation	Optimization of Enhanced Network Links	15/924,544	03/19/18

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Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	PCT/US20 16/053430	09/23/16
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	2018-536063	03/23/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	518391171	03/22/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	16849744.4	
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	2016327973	09/23/16
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares II" - PCT)	PCT/US18/ 023523	03/21/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	11201802370P	03/22/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	BR 11 2018 006011 9	03/26/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	10-2018- 7011555	04/24/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I")	201827014238	04/13/18
Circadence Corporation	Method and System for Penetration Testing Classification Based on Captured Log Data ("Mars")	16/163,954	10/18/18
Circadence Corporation	Method and System for Evaluating Individual and Group Cyber Threat Awareness ("InCyt")	16/172,276	10/26/18

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Circadence Corporation	System and Devices Facilitating Dynamic Network Link Acceleration	16/042,415	07/23/18
Circadence Corporation	Mission-Based, Game-Implemented Cyber Training System and Method ("Ares I" continuation)	16/056,892	08/07/18
Circadence Corporation	System for Dynamically Provisioning Complete Cyber Training Environments ("Orion" and "Coliseum")	PCT/US18/ 47509	08/22/18
Circadence Corporation	Method and System for Penetration Testing Classification Based on Captured Log Data ("Mars" PCT)	PCT/US18/ 56551	10/18/18

EXHIBIT C

TRADEMARKS

OWNER	DESCRIPTION	REGISTRATION/ SERIAL NUMBER	REGISTRATION/ APPLICATION DATE
Circadence Corporation	ORION THE MISSION BUILDER	88017693	June 27, 2018
Circadence Corporation	ORION	88017691	June 27, 2018
Circadence Corporation	CYRAAS	88033338	July 11, 2018
Circadence Corporation	PROJECT ARES	87759137	January 17, 2018
Circadence Corporation	DESIGN	87759129	January 17, 2018
Circadence Corporation	MAZER	87759360	January 17, 2018
Circadence Corporation	STRIKESET	87721627	December 14, 2017
Circadence Corporation	INCYT	87678523	November 9, 2017
Circadence Corporation	INCYT SERIOUSLY FUN!	87678515	November 9, 2017
Circadence Corporation	TRUGEN	87665367	October 30, 2017
Circadence Corporation	CYLITAIRE	87651022	October 18, 2017
Circadence Corporation	MVO OPTIMIZING APPLICATION PERFORMANCE	5183169	April 11, 2017
Circadence Corporation	DESIGN	5183125	April 11, 2017
Circadence Corporation	PROJECT ARES NEXT GENERATION CYBER SECURITY TRAINING	5183112	April 11, 2017
Circadence Corporation	PROJECT ARES	5183111	April 11, 2017

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Circadence Corporation	CIRCADENCE VVVV	4181626	July 31, 2012
Circadence Corporation	TECHNOLOGY POWERED BY TOMORROW	4047886	November 1, 2011
Circadence Corporation	CIRCADENCE	4005180	August 2, 2011
Circadence Corporation	CIRCADENCE TECHNOLOGY POWERED BY TOMORROW	4256431	December 11, 2012
Circadence Corporation	CIRCADENCE SPARK	4232103	October 30, 2012
Circadence Corporation	CIRCADENCE	2836803	April 27, 2004
Circadence Corporation	TRANSPORT MORPHING PROTOCOL	2732657	July 1, 2003

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