

PATENT ASSIGNMENT COVER SHEET

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NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
THALVEG DATA FLOW LLC	10/31/2019
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PROPERTY NUMBERS Total: 2	
Property Type	Number
Patent Number:	8548987
Patent Number:	7461058
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(a) the provisional patent applications, patent applications and patents listed in the table below (the “*Patents*”);

Active Patent(s) – (Filed; Granted)

<u>Patent/Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and First Named Inventor</u>
8548987 (12/263048)	US	10/1/2013 (10/31/2008)	System and Method for Efficiently Providing a Recommendation Rausser, John

(b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, and/or (ii) for which any of the Patents directly or indirectly forms a basis for priority;

(c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);

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- (1) damages,
- (2) injunctive relief, and
- (3) any other remedies of any kind

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Inactive Patent(s) -- (Abandoned; Lapsed; Expired)

<u>Patent/Application Number</u>	<u>Country</u>	<u>Issue Date/ Filing Date</u>	<u>Title of Patent and First Named Inventor</u>
7461058 (09/404597)	US	12/2/2008 (9/24/1999)	Optimized rule based constraints for collaborative filtering systems Rausser, John
(PCT/US2000/019731)	WO	(7/20/2000)	Optimized rule based constraints for collaborative filtering systems Rausser, John

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