RealNames Working Documents

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User Experience Overview
and Recommendations

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Executive Summary

The decision last year to divide Keywords into *Basic Keywords* (only available for terms that have 10 or less searches per month on MSN) and *Keywords Plus* (which must be approved by a human being applying rules of quality control as defined in the agreement) was intended to create an automated basis for the solving of any issues around data quality and user experience. In line with these changes and to further improve the user experience, *Keyword Namespaces* were also required to pass review and approval by a human being, and Basic Keywords were removed from search results.

Data obtained both before and after these changes were effected have given us excellent vision into the overall effectiveness of current Keyword policies. Ensuring a good Keyword user experience begins during the initial registration attempt, when the potential subscriber first checks for Keyword availability through the RealNames Subscription Filter Database. Additional quality assurance measures include a review of the prior day's subscription data to ensure proper filter functionality before Keyword data is uploaded to MSN. The Keywords Plus Application and Review process, a practical assessment of each term submitted for subscription as Keywords Plus based on user expectation, uniqueness, and the Registrant's asserted rights in the requested Keyword provides further assurance of quality Keyword data.

Through these efforts we have been able to minimize both the MSN requested Keyword revocations as well as RealNames initiated Keyword revocations.

Examination of the period beginning July 1, 2001 through March 31, 2002 reveals a 0.142% MSN requested revocation rate for all paid Keywords newly subscribed or renewed during this same period. Revocations during this period were primarily Standard Keywords (92%), followed by Basic Keywords and Keywords Plus – both at 4% each of total MSN requested revocations. (See product description table below). MSN requested revocation rates since the launch of the Basic Keyword and Keyword Plus products in August of 2001 demonstrate the effect of further quality improvements with revocation rates of 0.011% and 0.012%, respectively. The primary reason for revocation was due to the generic nature of a Keyword (56%), followed by contrary user expectation (35%), and not authorized ownership (9%). Asia experienced the majority of revocations at 59%, followed by EMEA with 33% and the US with 8%.

In order to continue to improve the user experience and simultaneously reduce the use of Microsoft resources required for review, we propose a number of policy and process changes in this document that we feel will move us materially towards those goals.

Current Statistics

MSN Requested Keyword Revocations - July 2001 through March 2002

	USA	EMEA	Asia	Total Revocations	Total Subscriptions 07/01 - 03/02*	Revocations as % of Subscriptions
Basic Keywords						
• *Contrary User Expectation*	0	3	0	3		0.005%
• *Generic*	0	1	3	4		0.007%
• *Not Owner*	0	0	0	0		0.000%
Total Basic Keywords:	**0**	**4**	**3**	**7**	**60,911**	**0.011%**
Keywords Plus						
• *Contrary User Expectation*	0	1	1	2		0.003%
• *Generic Term*	0	6	0	6		0.009%
• *Not Owner*	0	0	0	0		0.000%
Total Keywords Plus:	**0**	**7**	**1**	**8**	**67,361**	**0.012%**
Standard Keywords						
• *Contrary User Expectation*	5	26	28	59		0.046%
• *Generic*	7	12	72	91		0.071%
• *Not Owner*	2	11	4	17		0.013%
Total Standard Keywords:	**14**	**49**	**104**	**167**	**-**	**0.130%**
All Keywords						
• *Contrary User Expectation*	5	30	29	64		0.050%
• *Generic*	7	19	75	101		0.079%
• *Not Owner*	2	11	4	17		0.013%
Total All Keywords:	**14**	**60**	**108**	**182**	**128,272**	**0.142%**

* Includes Renewals, RN Alliance & RN Contract Subscriptions

RealNames Keyword Products Overview

	Dates Available	Annual Subscription Price	Query Level	Reviewed	IE Browser	MSN Search	Keyword Window
Basic Keyword	Beginning 08/26/01	$50	Under 10	No	Yes	No	Yes
Keywords Plus	Beginning 08/26/01	$498	11 and above	Yes	Yes	Yes	No
Standard Keywords	02/01/01- 08/26/01	$50	none	No	Yes	Yes	No

Keyword Quality Assurance Recommendations

RealNames believes that ongoing quality assurance development and automation will further improve and ensure an excellent Keyword user experience and simultaneously reduce the review burden on Microsoft.

A summary of RealNames current recommendations for enhancing Keyword quality include: (1) executing a resolver lookup protocol which would eliminate the Keyword data upload and indexing processes; (2) development of an automated policing agent through the Keyword Management System (KMS) which allows MSN Editors to view rules based "exception" data as well as initiate corrective action for specific data; (3) expansion of the automated policing agent to allow for Keyword review and an automated scoring process; (4) expansion of the subscription filter; (5) confirmation of Microsoft's normalization rules; and (6) establishment of acceptable standards and

ongoing metrics review by RealNames and Microsoft Editorial teams. Each of these recommendations is described in detail below.

Resolver
RealNames will implement a resolver lookup protocol. Implementation of this protocol will allow Microsoft to query the resolver in real time (better than 50 milliseconds) and ask the question "Do you have a Keyword for X?," where "X" is the user input and associated context like country and language. If the answer is "yes" the query will be passed to RealNames for resolution as a Keyword. If the answer is "no" the query will not be passed to RealNames. The advantages of utilizing the resolver lookup protocol include elimination of the data upload (delivery) and indexing (processing) and the savings for Microsoft on both technical and staff resources that support the current processes.

RealNames already has this technology. It was deployed (and scaled) successfully with both Google and AltaVista previously in real time. Microsoft would need to add code to the search back end, invoking a lookup to the RealNames Keyword Service. This is a relatively minor change.

Automated Policing Agent: Tools Access & Development
An unintended consequence of the solution above (implementation of a resolver lookup) is that the editorial team at Microsoft will not have daily access to RealNames data. To fix this, and allow Microsoft to embrace RealNames data policies, RealNames recommend the development of an automated policing agent that will throw out a daily "exception" file.

This policing agent can be rules based and can be live within 30 days. As a minimum it will look at all Basic Keywords and be sure that there are less than 10 searches on MSN Search in the most recent month. Additionally it will look at all previously sold Keywords and ask if there is a spike in usage that suggests a change has occurred in the meaning of the Keyword, necessitating a human review. It could also implement any other rules Microsoft feels appropriate within the terms of the contract.

In addition to creating a daily exception file, RealNames proposes that they deploy a Keyword Management Services (KMS) screen exclusively for Microsoft editors, allowing access to Keywords sold and allowing (within the limits of the agreement) for the rescinding of Keywords by Microsoft editors.

This screen could be used worldwide and allow MSN worldwide to police the namespace that affects their territory. Note that RealNames already has a KMS product that is used by internal RealNames editors and the RealNames sales channel. Within 30 days a new module specifically for Microsoft's use can be deployed. The potential for a trusted third-party to host this policing agent activity is another option for consideration.

Development of additional tools will provide an automated process for MSN Editors to send questions, comments and requests to RealNames Editors related to specific data in

our system, as well as provide reporting capabilities for analysis of data in the filters and subscription queue.

Automated Policing Agent: Keyword Review & Scoring Process
This initiative is focused on the development of an automated scoring process that would quantify and qualify terms submitted for Keyword review on the basis of user expectation, uniqueness, and asserted rights. Results of this scoring process would be logged in KMS and used in conjunction with current processes to further ensure accurate and consistent quality review results. The Keyword Review Score would be available through KMS.

Filter Expansion
RealNames is currently expanding our subscription filters on a country-specific basis through review and categorization of additional generic terms and popular brand names. This expansion will create more robust localized functionality, further ensuring proper routing of terms through the filter to the appropriate product designation (Basic Keyword or Keywords Plus) as well as identifying terms that are not suitable for subscription as Keywords.

MSFT Normalization Rules
Close cooperation with Microsoft to maintain and update normalization rules would allow RealNames to fine-tune its subscription filters. The Unicode based nature of RealNames' Keywords allows for a vast number of special characters to be displayed that are normalized out of query strings on the Microsoft side. This creates situations in which terms proceed through the filter when they shouldn't, e.g. *"sex†"* - which due to normalization rules will display as "sex", a term that would not be allowed through the filter. A comprehensive dialog on Microsoft's normalization rules would enable RealNames to update filter functionality to capture and prevent this type of situation. While many normalization issues have been resolved, opportunities remain for further alignment of the RealNames filter with MSN's front and back end systems that would contribute to our quality initiatives.

Quarterly Performance Reviews of RealNames by MSN Team
Ongoing review and discussion of the quality of the Keyword user experience is a critical factor in the successful development and implementation of process improvements and initiatives. RealNames would like to propose a quarterly meeting in Redmond between our editors to work collaboratively to ensure the highest quality Keyword user experience. Through definition and communication of a clear issues resolution path and the establishment of acceptable quality standards and ongoing metrics measurement we are confident in our ability to scale and further improve our current processes.

- Data Issues Resolution Path
  RealNames has demonstrated its desire and ability to respond quickly to issues presented by MSN Editorial.   A clearly identified communications path for MSFT personnel to raise questions and concerns related to Keyword data would create an

added level of efficiency that would further enable RealNames to respond and resolve these types of issues quickly, minimizing their impact on the user experience.

- Agreed Upon Performance Metrics
  By establishing acceptable quality standards and metrics for their measurement, RealNames and MSN can work together to achieve the quality standards required of the Keyword user experience.