PROFOUND NETWORKS

We go deeper.

DIGITAL BUSINESS INTELLIGENCE THAT DRIVES SUPERIOR DECISION-MAKING PERFORMANCE.

2024 PRODUCT REFERENCE GUIDE

We go deeper.

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LETTER FROM THE FOUNDER & CEO

I am excited about the future of Profound and the opportunities that lie ahead for the company and our clients. I am also very enthusiastic about many key aspects of our products and recent accomplishments, while also being dedicated to making our value proposition more concise and impactful moving forward.

For over a decade, our core product has been DBI—Digital Business Intelligence—a set of technographic signals linked to domains. Our extensive research has allowed us to map over 380 distinct attributes to 300 million unique domains, providing our customers with valuable insights. Additionally, we have developed IP Analytics to gather similar data from IP addresses. The process to collect these digital signals remains consistent regardless of the physical location.

We continue to assert that the domain itself serves as the ultimate organizational level match-key. It has become the crucial identifier for every company and organizational entity that manages a unique domain. This concept has gained traction globally. With the recent release of our Ultimate_Domain Library® (UDL), we find ourselves engaged in conversations regarding Master Data Management (MDM) including the reorganization of corporate linkage infrastructure to support the UDL. Our tools and expertise in matching business IDs to domains through our branded service called Digital Entity Resolution (DER) position us as the unrivaled leader in this space.

On August 1st, 2023, we surpassed our revenue from the previous year, and we are on track to double our revenue this year. This growth momentum, along with multi-year enterprise agreements, shows promising signs for 2024, 2025, and beyond. However, we define our core value not by any tangible metric, but by Profound's people and the intangible bonds we have built spanning decades and continents. Our team continues to pour tremendous energy and creativity into developing, supporting, and improving our data-driven capabilities.

Recently, we have released a suite of new offerings:

- *DER – Digital Entity Resolution*
- *TAM Builder – Total Addressable Market*
- *UDL – The Ultimate_Domain Library®*
- *Cyber Analytics*

TAM Builder offers a modeling masterpiece that translates historical DBI signals into machine-readable data, enabling the identification of domains with similar profiles. Cyber Analytics expands on the DBI concept by analyzing a domain's cybersecurity profile and linking it to a family of domains linked to the same organizational entity.

There may not appear to be an immediate connection to Technographics and Cyber Security, Digital Linkage, and Modeling, but the common thread that binds these offerings together is our deep knowledge and compilation of Internet architecture data. Our expertise in compiling comprehensive snapshots of data at the Internet protocol level, including DNS, HTTP, HTTPS, SMTP, WHOIS, BGP, ICMP, and others, sets us apart. This native compilation strategy fuels the UDL, enables DBI and Cyber Analytics, and serves as the backbone for TAM Builder.

In today's world, measuring technological capacity is crucial when assessing economic strength.

We are uniquely positioned to provide extraordinary value to our clients by compiling, measuring, and interpreting Internet architecture and network data. And then by attributing these signals to organizational entities through new and disruptive digital linkage capabilities. This allows our clients to gain insights that cannot be found elsewhere, and to make sharper, faster, and better decisions.

Thank you for taking the time to review our value proposition. We are confident with what the future holds for Profound and the many opportunities that lie ahead. We look forward to discussing how our offerings can benefit your organization.

Sincerely,
Blake Sitney
Founder & CEO

PROFOUND NETWORKS

trusted

by top global companies

Profound Networks helped Moody's Analytics to create a digital footprint of a company's Internet presence to complement the more traditional view of its corporate structure, so we can offer our customers a holistic view of the company's assets.

Beth Jacaruso
Head of Content Strategy, Moody's Analytics, Data Solutions

Moody's Analytics

We have had such a positive experience working with Profound over the past 5+ years. The team at Profound has always been very responsive with quick turnarounds on all requests. They have provided us new innovative data opportunities when solutions align and have been proactive keeping our partnership going! Would definitely recommend working with Profound.

Laura Branham
Senior Systems Engineer, Adobe

Adobe

Profound helps us keep our data strategy and operations cutting edge with their products and services. The consultative engagement gives us access to highly experienced data experts that can help us be successful and improve our strategy and use cases.

Sean Beierly
Global Insight & Analytics, Advanced Analytics Team, Cisco

Cisco

Microsoft · American Express · Google · Equinix · Hewlett Packard Enterprise · Atlassian · dun & bradstreet · Dell

PROFOUND NETWORKS

Founded in 2005, Profound Networks is a leading provider of customized tools and services that address a wide range of business intelligence and security needs.

The internet is a virtual sea of information with unparalleled depth and global reach. Profound maps this digital ecosystem to reveal technographic signals that drive insight and business opportunities. Our proprietary process explores the depths of the internet to compile data on all routable IP addresses, currently at 3.4 billion. With deep intelligence into the IT infrastructure of 300+ million domains, including 90+ million unique business and organizational domains, Profound delivers real-time data insight for real-world business challenges.

Discover a Deeper Advantage

We comprehensively track public Internet-facing networks, recording growth and decline over given periods of time. But our business intelligence is much more than just static data. Our dynamic service keeps your database current with the latest technographic details to maximize ongoing value.

Our experts can support specialized data research to meet your individual needs. These include identifying specific competitive installation details, tracking technology upgrades, leveraging custom algorithms and machine learning techniques, Big Data manipulation/processing, and real-time API workflows. Our clients leverage this intelligence to make the best fact-based decisions with a much higher degree of confidence.

AT A GLANCE

- Identify and prioritize companies based on the growth of their network and the sophistication of their digital footprint
- Monitor a company's public network activity to better identify marketing and sales opportunities
- Drive more robust segmentation with specific data points to create an ideal prospect or client profile
- Generate custom trigger programs to increase prospect engagement or track material changes to network risk profiles
- Determine cloud outsourcing migration, e-commerce capabilities, and better identify and target display ad audiences
- Map digital corporate linkage by matching domains to enterprises
- Identify web visitors by their business IP address to achieve differentiation of content for customers vs. prospects
- Track the growth trends of DNS, subdomain, and backlink growth to identify correlations in public and private companies to support investment opportunities and risk assessment

bombora MARRIOTT amazon ads experian. Munich RE LexisNexis Meta verizon THE CARLYLE GROUP

Digital Entity Resolution is an accurate, repeatable process to globally map physical data to digital assets.

Digital Entity Resolution

The Ultimate Solution for Master Data Management

Are you struggling with the complexity of matching digital data in your enterprise? Do you find it challenging to link and integrate data from multiple sources such as email, domains, URLs, and IP addresses? Digital Entity Resolution (DER) will not only meet all these needs but will also revolutionize your data management process.

Unlock the power of your data

DER is designed for enterprise companies in the technology, telecom, and financial services arena, and other companies that require matching digital data to business IDs. It's the ultimate solution for unlocking the power of your master data.

Trusted quality that keeps you ahead of market trends

DER has established a track record for fundamentally upgrading domain linkage to enterprise databases. It is set apart from competitors with its unique functionality to maintain domain-to-B2B record data over time. This includes tracking domain redirects and evaluating if they are merely domain name changes or a signal of a merger or acquisition. In the case of domains producing an error or redirecting to a "parked" website, this can flag potential credit risk or a downturn in business operations. With DER, you can trust that your B2B data is of the highest quality and stay ahead of market trends.

We observe 53 million domains that currently redirect. Among many valuable features of DER, redirect tracking is an important one. There are several reasons a website domain will redirect:

- Acquisition: A digital signal of M&A activity.
- Business dissolution: If a viable website redirects to a "parked" domain, such as hugedomains.com, this can be a risk factor indicating a downturn in business operations.
- Company name or website domain name change: A company may redirect to a new domain if it finds a better one representing its brand.
- Redirect to social media: Some companies decide to position their online presence on a social media such as Facebook.com, Yelp.com, LinkedIn.com, etc. These are tracked and flagged accordingly as "B2B URLs."

hugedomains.com	4,909,881
tumblr.com	2,807,566
freenom.com	2,465,975
afternic.com	1,961,400
dan.com	1,258,941
google.com	611,765
sedo.com	545,583
godaddy.com	529,605
buydomains.com	505,450
replit.com	301,787
microsoftonline.com	258,933
facebook.com	248,599

DER bridges the gap between the physical location of a business with their digital online presence—typically the website domain. Linking the two—the physical location with the digital—unlocks a wealth of value and numerous use cases. The domain is more than a B2B attribute; it is an organizational level match key.

DER combines a domain linkage library and a platform that maps unique business location and identifiers to that organization's website domain. The B2B identifiers may include one or more of the following:

- List of Company Names & Addresses
- D&B D-U-N-S™ WorldBase *(processor's agreement required)*
- BvD Numbers & ORBIS-IDs *(processor's agreement required)*
- Experian BIN *(processor's agreement required)*

There are three DER Components:

- Domain Append
- Domain Grades
- The Ultimate Domain Library®

Proven results

Moody's Analytics, a global information company, tripled domain coverage in their 400 million record ORBIS database by leveraging DER. This resulted in the opening of selling propositions with millions of dollars in new revenue streams. DER not only fills gaps within domain coverage but also confirms accurate domains, replacing incorrect ones, and maintaining the linkage between B2B records and domains over time.

A smooth integration to deeper analytics

In addition to its innovative platform, DER also offers additional service offerings. We provide deep analytics to measure and quantify the improvements in your data matching, providing valuable insights to enhance your business strategies. And our consultative approach ensures a smooth integration and a successful outcome for your business.

Built for future needs

DER has exciting plans for the future. We are developing the Domain Acceptance Rules Engine (DARE), which will operationalize domain acceptance based on logical rules. This enhancement will further streamline and automate the domain matching and acceptance process, maximizing the benefits and efficiency of using DER.

USE CASES

Digital Entity Resolution perfectly complements traditional Entity Resolution services which, in the B2B arena, typically focus on legal hierarchy linkage.

Digital Entity Resolution is programmatic and fast. As an example, M&A events in the private sector and in emerging markets are often unveiled via Internet Infrastructure signals long before showing up in traditional legal linkage hierarchies.

Changes in published addresses and phone numbers, or other core firmographics such as Employee eCount and NAICS classifications from website monitoring can initiate stewardship triggers.

Digital assets such as B2B email domains, Websites, URLs, subdomains, and IP addresses can be resolved to their Ultimate Domain supporting a more complete picture of attribution and the customer journey.

B2B Website registration example: When someone registers on your website using jane@dq.com you may not know that this registration comes from a division of Berkshire Hathaway (Dairy Queen). Registrations can be prioritized effectively when resolved to its Ultimate Domain.

Cyber Security risk analysis benefits from knowing the expanded attack surface of an organization's public network. Profiling only one domain tied to a company with many divisions, brands, and acquisitions, does not provide a complete Cyber risk profile. In the case of Berkshire Hathaway, Profound' DER library links it to 4,320 unique domains.

Domain Append

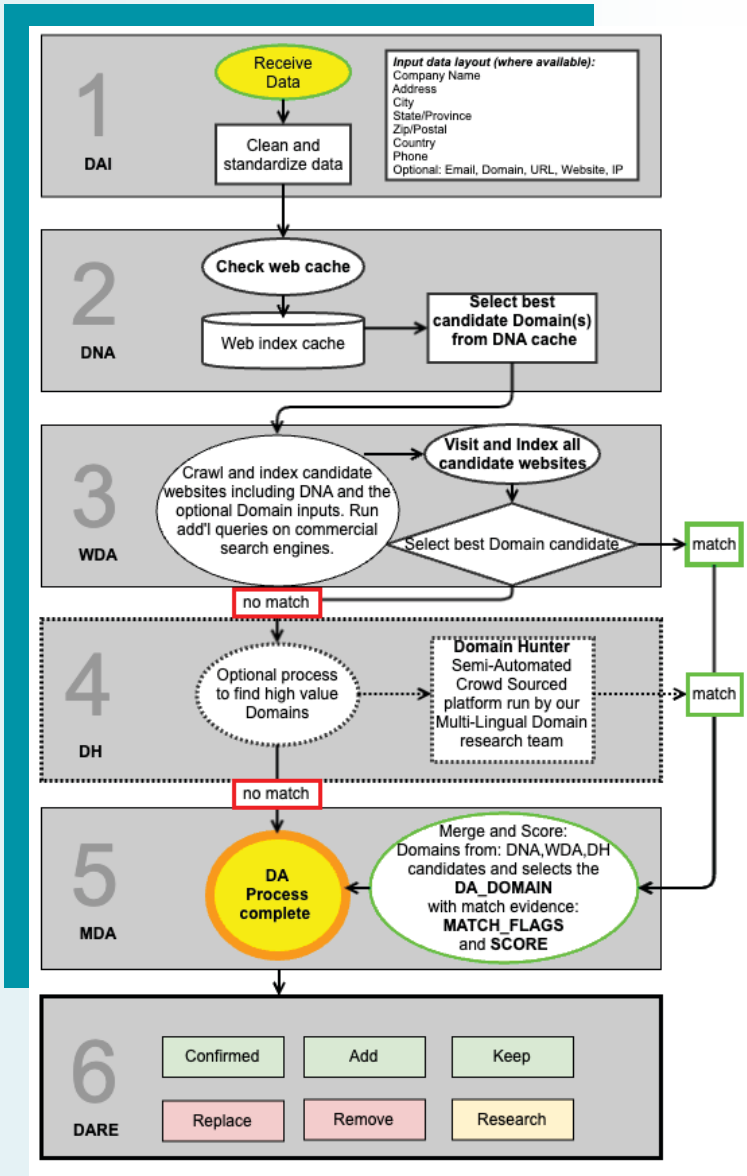
The first component in the DER Suite is Domain Append. Trusted by numerous Blue-Chip companies, Domain Append is the best-in-class, enterprise-ready domain-matching platform scalable to hundreds of millions of input records.

Domain Append appends the accurate primary domain (website) to input records containing at a minimum, the company name and country. To improve match rates and match confidence, the address, city, state/province, zip/postal code, phone number, and candidate website/domain (where available) should be included. Domain Append matches your business data with the definitive source of truth—the company's own website—and determines which fields matched and which input fields did not match the company's self-published location information.

Mapping the domain to business records provides significant value for matching, enrichment, business status, risk/credit, compliance, white space analysis, competitive analysis, and many other applications. Linking those domains to the Ultimate Domain by leveraging Profound's Ultimate_Domain Library® takes the value proposition to a whole new level. The **match key** between the physical location of a B2B customer record and the digital universe **is the domain**.

The Domain Append process

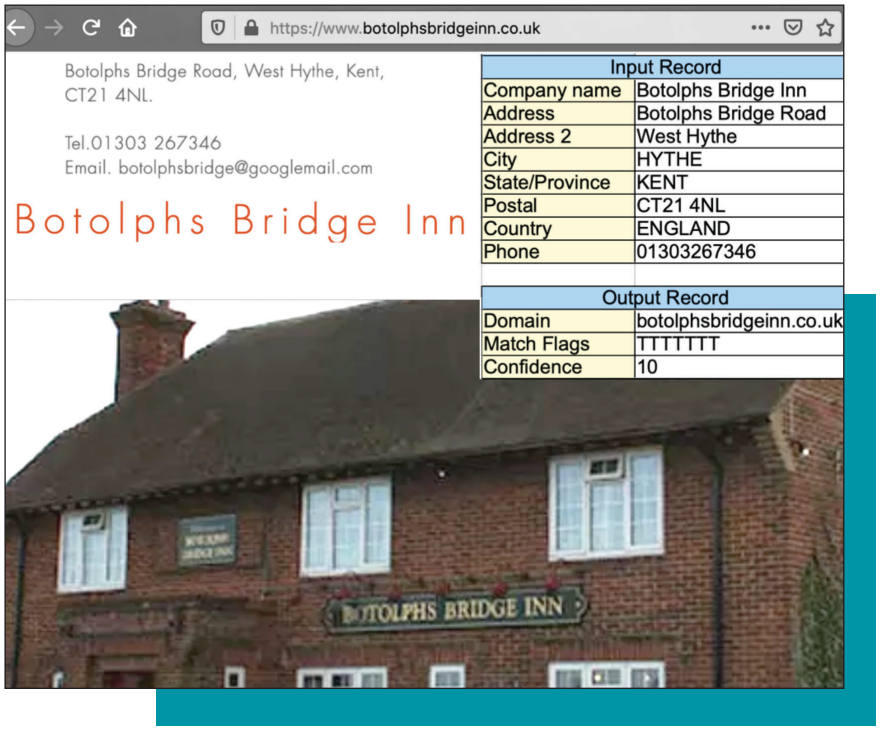
An input file of the business ID number, company name, address, city, state, zip, country, phone, and domain are provided where available for processing. This input file is then loaded and dynamically matched to their respective Domain and Ultimate Domain along with Profound's quality control match results: the Match Flag string and match confidence score. Real-time web indexing is performed for each input record to ensure matches of the highest possible freshness and quality.



Match Flags: Profound verifies that a domain is the correct one for the given input record by taking into account the physical location elements of the input record itself: Company Name, Address, City, State/Province, Zip/Postal, Country, and Phone.

The primary business website for the given input record will frequently publish their business location(s) on pages including the Contact Us, Directions, or the Locations page. The specific elements found (or not found) are indicated in Profound's proprietary "Match Flags" field which returns the Domain along with the match confidence score. Match Flags are returned in the format ranging between "TTTTTTT" to "FFFFFFF" which translates to: All 7 elements of the input file were found (True) or All 7 elements of the input file were not found (False) on the target website" and combinations thereof.

Match Flags may also contain a "P" for Partial match or a dash "-" which indicates that this particular field was not tested. That is, it is inconclusive if that data element was found or not found on the website. In this case, the Match Flags (TTTTTTT) indicate that 7 of the 7 input elements were found published on the website itself.



Input Record	
Company name	Botolphs Bridge Inn
Address	Botolphs Bridge Road
Address 2	West Hythe
City	HYTHE
State/Province	KENT
Postal	CT21 4NL
Country	ENGLAND
Phone	01303267346

Output Record	
Domain	botolphsbridgeinn.co.uk
Match Flags	TTTTTTT
Confidence	10

10% of all routable IP addresses are allocated to just 500 Ultimate Domains (the Fortune 500). These 500 domains collectively map to 288k unique Children Domains. And these Children Domains map to 398 million unique subdomains.

DOMAIN APPEND USE CASES

USE CASES

Risk Evaluation

Critical business insight can be uncovered once you know the domain of the company. Banks and lenders typically review a company's website before extending a business loan. It's relatively easy to put up a website that conveys the credibility of a professional organization. Profound's Cyber Analytics provides the ability to look behind the public-facing content and into the technographics of the website, revealing important details. How long has the site been active? 5 years or 5 days? Does the site have a history of leveraging high-quality tools and services or are they employing low-cost / no-cost solutions? Does the site conduct eCommerce? Is it properly secured with industry-standard encryption tools like SSL/TLS certificates? What is the level of visibility and popularity of the website? The domain of an organization can provide a wealth of insight that helps gauge risk.

Branding and Identification

Most companies have an established online presence with a unique domain. This domain essentially becomes the main marketing tool. To reinforce the brand, companies typically utilize an email address structure for all employees. The email addresses captured via forms on websites can be mapped to your business records, helping to identify and prioritize prospects.

Visitors to a website that do not register or login leave their IP addresses in your server log files. These IP addresses can also be mapped to a domain and then linked to your enhanced B2B database.

Prospecting

Sales representatives always qualify leads and typically search the Internet to gain insight into what the business does, their locations, the team, and other vital details. When a record does not contain a domain, reps are forced to perform online research every single time. What if the business does not have a domain or it cannot be easily found? The sales rep will likely dismiss that lead as unqualified. If the list has too many leads without a website, valuable time is lost, impacting sales.

Having the most up-to-date, accurate database with a domain gives organizations valuable insight that can help them better-target prospects.

Domain Grades

Domain Grades is the second component of the DER Suite. With Domain Grades, a Report Card can be generated and analyzed to measure the quality of internal and third-party data sets, and to track improvements over time. Below is Profound's Report Card for all 300+ million domains we compile:

- Classifies and grades all domains so that quality is determined and then changes are easily monitored and remediated
- Domains redirect to other domains, sometimes in chains, and these destination domains are also classified and graded
- Domains are classified and scored as Business, Under Construction, Redirects, Error, Non-Business (personal website, blog, games, photo sites, adult, etc), and several other classifications. The important classification for most use cases is "Business".

Grade A	business with domain_classification_score > 0.6
Grade B	business with domain_classification_confidence score < 0.6
Grade C	Includes the following domain_classification categories: "blank", "error", "no_homepage", "nonbusiness_ads", "nonbusiness_error", "nonbusiness_login", "nonbusiness_other", "nonbusiness_undercon", "nonbusiness_xxx", "redirect", "timeout"
Grade D	If "nonbusiness" "redirect" or a lower confidence than a Grade C "redirect", then Grade D is applied.
Grade E	"ns_only". Nameserver only. Typically no content whatsoever.
Grade F	"unregistered" an unroutable domain. Not current in WHOIS.

With these Domain Grades, a Report Card can be generated and analyzed to measure the quality of internal and third-party data sets, and to track improvements over time. Below is Profound's report card for all 300+ million domains Profound compiles:

Unique Domain Count	Profound Domain Grade	%	Domain Grade Classification
31,649,515	A	9.76%	Business >= .6
59,098,142	B	18.23%	Business < .6
139,713,870	C	43.09%	Non Business website
56,851,961	D	17.53%	Redirect
36,913,279	E	11.39%	Name Server only
	F	0.00%	Unrouteable
324,226,767	**TOTAL**	**100.00%**	
90,747,657	**Digital B2B TAM**		

TAM = Total Addressable Market

Reduce unmatched records and missed opportunities by understanding digital linkage.

The Ulimate_Domain Library®

The third component of the DER Suite is the Ultimate_Domain Library.® Linkage is crucial factor in gaining a comprehensive view of an enterprise. The Ultimate_Domain Library® maps tens of millions of children domains (websites) to their parent or ***Ultimate Domain***.

Since website domains do not form units in a standard or legal hierarchy, Profound developed this proprietary domain hierarchy to attribute multiple website domains to the same organizational entity. As an example, Cargill Inc. manages many domains including: cargillag.com, cargill.co.uk and 113 others, but cargill.com is the primary domain or, what our Library lists as the ***Ultimate Domain*** for Cargill Inc.

The domain hierarchy consists of three tiers:

Ultimate Domain	Level 2 Domains	Children Domains

How it works

Domain linkage resolves numerous Internet Infrastructure signals including DBI assets that when programmatically aligned groups domains together.

The table below illustrates Sanofi, a large French pharmaceutical organization, as an example of the relationships between domains for a global enterprise that has grown by acquisition.

	Domain Linkage		Sizing	Internet Infrastructure Signals supporting Domain Linkage				
	Ultimate Domain	Email Domain	Employee eCount	Nameserver Domain	Mail Server Domain	Mail Server IP address	Favicon Hash	Redirect Domain
✓	sanofi.com	sanofi.com	82,181	sanofi-synthelabo.com	mimecast.com	51.163.159.22	b432c3cf12984f67	
✓	sanofi.com	genzyme.com	23,489	sanofi-synthelabo.com	mimecast.com	51.163.159.22		sanofi.com
✓	sanofi.com	sanofipasteur.com	16,927	sanofi-synthelabo.com	mimecast.com	51.163.159.22		sanofi.com
✓	sanofi.com	sanofi-aventis.com	14,700	sanofi-synthelabo.com	mimecast.com	51.163.159.22		
✓	sanofi.com	sanofi-aventis.us	5,243	sanofi-synthelabo.com	outlook.com	104.47.1.36		sanofi.us
✓	sanofi.com	sanofi.us	4,677	sanofi-synthelabo.com	sanofi.com	205.137.77.59	b432c3cf12984f67	
✓	sanofi.com	sanofi.fr	1,114	sanofi-synthelabo.com	sanofi.com	205.137.77.59	b432c3cf12984f67	
✓	sanofi.com	medley.com.br	1,036	sanofi-synthelabo.com	mimecast.com	51.163.159.22	ee3c1143fa3c8dc1	
✓	sanofi.com	chattem.com	1,014	sanofi-synthelabo.com	mimecast.com	51.163.159.22		
✓	sanofi.com	ablynx.com	570	sanofi-synthelabo.com	outlook.com	104.47.0.36		sanofi.com
✓	sanofi.com	principiabio.com	361	sanofi-synthelabo.com	mimecast.com	51.163.159.22		sanofi.com
✓	sanofi.com	proteinsciences.com	341	sanofi-synthelabo.com	mimecast.com	51.163.159.22	916c4f613c7564e6	
✓	sanofi.com	vaxserve.com	340	sanofi-synthelabo.com	mimecast.com	51.163.159.22	e6399b66199a6631	
✓	sanofi.com	ilexonc.com	211	sanofi-synthelabo.com	sanofi.com	205.137.77.59		
✓	sanofi.com	kymab.com	200	sanofi-synthelabo.com	mimecast.com	51.163.159.22	c76630cc3c936766	
✓	sanofi.com	bioverativ.com	187	sanofi-synthelabo.com				
✓	sanofi.com	hemophilia-b-treatment.com	184	sanofi-synthelabo.com	cscdns.net	198.58.121.58		alprolix.com
✓	sanofi.com	synthorx.com	142	sanofi-synthelabo.com	outlook.com	104.47.0.36		
✗		sanofi.al	0	sedoparking.com				

sanofi.com has 5,955 children domains as of August 2022

Overlapping Internet Infrastructure signals enable domain linkage that is fast, scalable, global, and programmatic.

sanofi.al registered with the Albanian WHOIS registry and it has no Internet Infrastructure signals linking to sanofi.com. Possible fraudulent intent.

Level 2 domains

For large organizations with numerous divisions, we allow for an intermediary hierarchy tier, the Level 2 Domain:

Ultimate Domain	Level 2 Domains	Children domains
volkswagenag.com	porsche.com	porsche.co.at; porsche.de
	lamborghini.com	lamborghini.it; lam.bo
	audi.com	audiusa.com; audimotorsport.com
	bentleymotors.com	bentley-direct.at; bentleysupersports.com

By matching the domain to our Ultimate_Domain Library®, and to the Ultimate Domain, a valuable form of linkage will help tie together numerous orphaned records. Additionally, based on fast changing Internet Infrastructure signals, such as website redirects (a powerful Domain linkage signal), we can programmatically identify mergers and acquisitions, divestitures, and company name changes faster than traditional B2B data compilers, particularly in the private sector and in emerging markets.

Profound's Ultimate_Domain Library® is growing quickly. From a universe of 324 million unique domains consisting of 91 million domains classified as a business (as of December 2022), to now more than 27 million domains with linkage in the library:

- 9.3 million unique Ultimate Domains
- 30k Level 2 Ultimate Domains (with over 300k Level 2 Children Domains)
- 27.6 million unique Children Domains roll up to an Ultimate Domain

By linking the numerous digital assets that flow into your enterprise leveraging the Ultimate_Domain Library®, and matching these assets to your internal business account IDs, what unfolds can truly be called a ***Digital Transformation***.

- MDM use cases include leveraging the Ultimate_Domain Library® to resolve orphaned vs. look-a-like entities
- Vastly improved domain matching to physical business data
- Technographic profiles, such as Profound's DBI asset, can be rolled up to the Ultimate Domain for much more comprehensive risk, credit, and marketing decisioning
- Business Email address domains registering in your online web forms roll up to Ultimate Domains crucially linking registrations to their entity
- KYC, fraud, and risk use cases often include previously orphaned digital fingerprints that can now be rolled up to the Ultimate Domain uncovering the true location and business identity

Digital Asset	Digital Entity	Redirect Domain	Domain	L2 Domain	Ultimate Domain
B2B Email	wendy.green@lam.bo	lambourghini.com	lam.bo	lambourghini.com	volkswagenag.com
B2B Email	joe.tessio@ducati-insurance.com		ducati-insurance.com	ducati.com	volkswagenag.com
URL	https://www.audimanhattan.com/contact.htm		audimanhattan.com	audi.com	volkswagenag.com
Subdomain	mail.bentleyofgreenwich.com		bentleyofgreenwich.com	bentleymotors.com	volkswagenag.com
Subdomain	autospektrum2000.skoda-auto.cz		skoda-auto.cz	skoda-auto.com	volkswagenag.com
Domain	cite.man	man.eu	cite.man	man.eu	volkswagenag.com
Domain	a4.audi	audi-mediacenter.com	a4.audi	audi.com	volkswagenag.com
IP Address	185.116.31.155		porsche.co.at	porsche.com	volkswagenag.com

This is an example of digital entities that all link to Volkswagen

Use Case: Family hierarchy resolution

DBI attributes to support family hierarchy resolution include:

- **Email server:** Many companies manage all of their domains from a single email server, making security management more consistent and less complex. This linkage is identified by Profound.
- **IP address mapped to parent domain:** If multiple domains are hosted on the same webserver, this can be, but not always, an indication of linked domains.
- **SSL certificates:** Enhanced validation of SSL certificates include the company name. All domains sharing the same enhanced validation name are highly likely to be linked.
- **Web analytics package ID:** Different websites that share the same Google Analytics ID are highly likely to be owned by the same company.
- Additional digital linkage signals include unique IDs mapped to CRM vendors such as salesforce.com. If multiple websites link to the same salesforce.com ID, it is highly likely that those different websites are owned by the same company.

Digital Business Intelligence (DBI) Enrichment

DBI Enrichment: The following fields provide insight into the quality, sophistication, and visibility of the domains. For the Gold Domain, the domain in the input record, we identify which domains are most visible via the DomainRank™ score. For example, when sorting the file by DomainRank™, the well-branded domains will rise to the top. DBI Density reveals the level of sophistication of the Domain's Digital Ecosystem. A use case for these would include identifying the most important domains in a particular family. As an example, Johnson & Johnson jnj.com has 20k+ domains—which ones are the top 10 in terms of DomainRank™ or DBI Density?

DA_DBI_DENSITY	The richness of the technographics profile. DBI_DENSITY > 30 is acceptable
DA_DOMAINRANK	The DomainRank™ of the DA_DOMAIN
DOMAIN_GRADE	The quality of the Domain ranging from A-F. A and B grades are Business or organizational entities.

Gold domain details

We recommend providing your Domain/Website/URL/Email (which we convert to "Gold Domain" for matching) in the input record for Domain Append, where available. This is useful for quality control checks when reviewing the set of domains where the Gold Domain disagrees with Profound's DA Domain. Your input domain will also get linked to the Ultimate Domain and other attributes listed below. If the DA Domain and your Gold Domain disagree, but they both share the same Ultimate Domain, then they may both be right!

GOLD_DOMAIN	The Domain provided in the input file
GOLD_TYPE	Values incl: Child, L2ultimate, & Ultimate. This indicates the relationship of GOLD_DOMAIN to hierarchy
GOLD_ULTIMATE_DOMAIN	The Parent or Ultimate Domain for GOLD_DOMAIN
GOLD_DOMAIN_FAMILY_COUNT	The total number of Domains digitally linked to GOLD_DOMAIN
GOLD_REDIRECT_URL	If the GOLD_DOMAIN redirects to another domain, the full URL is indicated.
GOLD_REDIRECT_DOMAIN	If the GOLD_DOMAIN redirects to another domain, that Domain is indicated.
GOLD_DOMAIN_IS_REDIRECT	A Y/N flag determing if the GOLD_DOMAIN redirects or not
GOLD_DBI_DENSITY	The richness of the technographics profile. The density increases with more observable technologies.
GOLD_DOMAINRANK	DomainRank™ counts the number of inbound links from other unique domains. Better DomainRank™ means more popular website.
GOLD_DOMAIN_GRADE	The quality of the Gold Domain ranging from A-F. A and B grades are Business or organizational entities.
GOLD_REDIRECT_QUALITY	GOLD_DOMAIN redirects and returns two values: "b2b_url" or "parked".

DARE details

A set of Domain Acceptance Rules has been developed to select the best possible domain from the candidates: DA_DOMAIN, GOLD_DOMAIN, DA_REDIRECT_DOMAIN, GOLD_REDIRECT_DOMAIN
These rules can be customized based on your specific use case. As an example, risk and credit applications may require tighter rules than sales and marketing.

Domain_Reco	This is the recommended Domain to accept based on the DARE rules
DARE_Rule	Domain Acceptance Rules Engine (DARE). Indicates the specific rule that selected the best domain from among the candidates
Domain_Select	The Domain accepted from the following sources: DA_DOMAIN, GOLD_DOMAIN, DA_REDIRECT_DOMAIN, GOLD_REDIRECT_DOMAIN

Typical input file layout and the DER output file layout. The input file is always returned unmodified with the output data appended to each row.

Input File
Unique Record ID
Company Name
Company Name DBA
Address
Address line 2
City
State/Province
Postal/Zip
Country
Phone
Website/Domain/Business Email
Number_of_family_locations
high_value_record_flag

Field Names	Field Name short definitions
DA_DOMAIN	The Domain that Profound's Domain Append platform matches to input record
DA_TYPE	Values incl: Child, L2ultimate, & Ultimate. This indicates the relationship of DA_DOMAIN to hierarchy
DA_ULTIMATE_DOMAIN	The Parent or Ultimate Domain for DA_DOMAIN
DA_L2_DOMAIN	The Level 2 or "important" Domain linked to the Ultimate Domain
DOMAIN_FAMILY_COUNT	The total number of Domains digitally linked to DA_DOMAIN
DA_SKIP_TYPE	The reason an input record was not processed
DA_DOMAIN_SOURCE	The internal system that matched the input record (WDA, DNA, DH)
DA_MATCH_FLAGS	A 7 character string with True or False (T, F) flags that signal field matches
DA_MATCH_SCORE	An integer summarizing the level of True results in the DA_MATCH_FLAGS
DA_REDIRECT_URL	If the DA_DOMAIN redirects to another domain, the URL is indicated.
DA_REDIRECT_DOMAIN	If the DA_DOMAIN redirects to another domain, that Domain is indicated.
DA_DOMAIN_IS_REDIRECT	A Y/N flag determining if the DA_DOMAIN redirects or not
DA_REDIRECT_DOMAIN_GRADE	The quality of the DA Redirect Domain ranging from A-F. A and B grades are Business or organizational entities.
DA_REDIRECT_QUALITY	DA_DOMAIN redirects and returns two values: "b2b_url" or "parked".
DA_DBI_DENSITY	The richness of the technographics profile. DBI_DENSITY > 30 is acceptable
DA_DOMAINRANK	The DomainRank™ of the DA_DOMAIN
DA_DOMAIN_GRADE	The quality of the DA Domain ranging from A-F. A and B grades are Business or organizational entities.
GOLD_DOMAIN	The Domain provided in the input file
GOLD_TYPE	Values incl: Child, L2ultimate, & Ultimate. This indicates the relationship of GOLD_DOMAIN to hierarchy
GOLD_ULTIMATE_DOMAIN	The Parent or Ultimate Domain for GOLD_DOMAIN
GOLD_DOMAIN_FAMILY_COUNT	The total number of Domains digitally linked to GOLD_DOMAIN
GOLD_REDIRECT_URL	If the GOLD_DOMAIN redirects to another domain, the full URL is indicated.
GOLD_REDIRECT_DOMAIN	If the GOLD_DOMAIN redirects to another domain, that Domain is indicated.
GOLD_DOMAIN_IS_REDIRECT	A Y/N flag determing if the GOLD_DOMAIN redirects or not
GOLD_DBI_DENSITY	The richness of the technographics profile. The density increases with more observable technologies.
GOLD_DOMAINRANK	DomainRank™ counts the number of inbound links from other unique domains. Better DomainRank™ means more popular website.
GOLD_DOMAIN_GRADE	The quality of the Gold Domain ranging from A-F. A and B grades are Business or organizational entities.
GOLD_REDIRECT_DOMAIN_GRADE	The quality of the Gold Redirect Domain ranging from A-F. A and B grades are Business or organizational entities.
GOLD_REDIRECT_QUALITY	GOLD_DOMAIN redirects and returns two values: "b2b_url" or "parked".
Domain_Reco	This is the recommended Domain to accept based on the DARE rules
DARE_Rule	Domain Acceptance Rules Engine (DARE). Indicates the specific rule that selected the best domain from among the candidates
Domain_Select	The Domain accepted from the following sources: DA_DOMAIN, GOLD_DOMAIN, DA_REDIRECT_DOMAIN, GOLD_REDIRECT_DOMAIN

DER DATA LAYOUT BREAKDOWN

Domain linkage and domain hierarchy

Output File	Output file short definitions
DA_DOMAIN	The Domain that Profound's Domain Append platform matches to input record
DA_TYPE	Values incl: Child, L2ultimate, & Ultimate. This indicates the relationship of DA_DOMAIN to hierarchy
ULTIMATE_DOMAIN	The Parent or Ultimate Domain for DA_DOMAIN
L2_DOMAIN	The Level 2 or "important" Domain linked to the Ultimate Domain
DOMAIN_FAMILY_COUNT	The total number of Domains digitally linked to DA_DOMAIN

DA quality results

Domain Append matches each unique business record to the Domain with best-in-class coverage and accuracy.

DA_SKIP_TYPE	The reason an input record was not processed
DA_DOMAIN_SOURCE	The internal system that matched the input record (WDA, DNA, DH)
DA_MATCH_FLAGS	A 7 character string with True or False (T, F) flags that signal field matches
DA_MATCH_SCORE	An integer summarizing the level of True results in the DA_MATCH_FLAGS

Redirect details

Redirects are tracked and maintained, helping to identify acquisitions, company name changes, or simply domain name changes.

DA_REDIRECT_URL	If the DA_DOMAIN redirects to another domain, the URL is indicated.
DA_REDIRECT_DOMAIN	If the DA_DOMAIN redirects to another domain, that Domain is indicated.
DA_DOMAIN_IS_REDIRECT	A Y/N flag determining if the DA_DOMAIN redirects or not
DA_REDIRECT_QUALITY	DA_DOMAIN redirects and returns two values: "b2b_url" or "parked".

DER processes billions of B2B records annually. With this experience, our trained consultants will work with you to fine tune your domain acceptance policies. With a refresh cadence aligned with your update cycle, DER will maintain the freshest and most accurate domain to B2B record mapping.

Identify and target specific types of companies with unparalleled accuracy.

TAM Builder

Build your Total Addressable Market

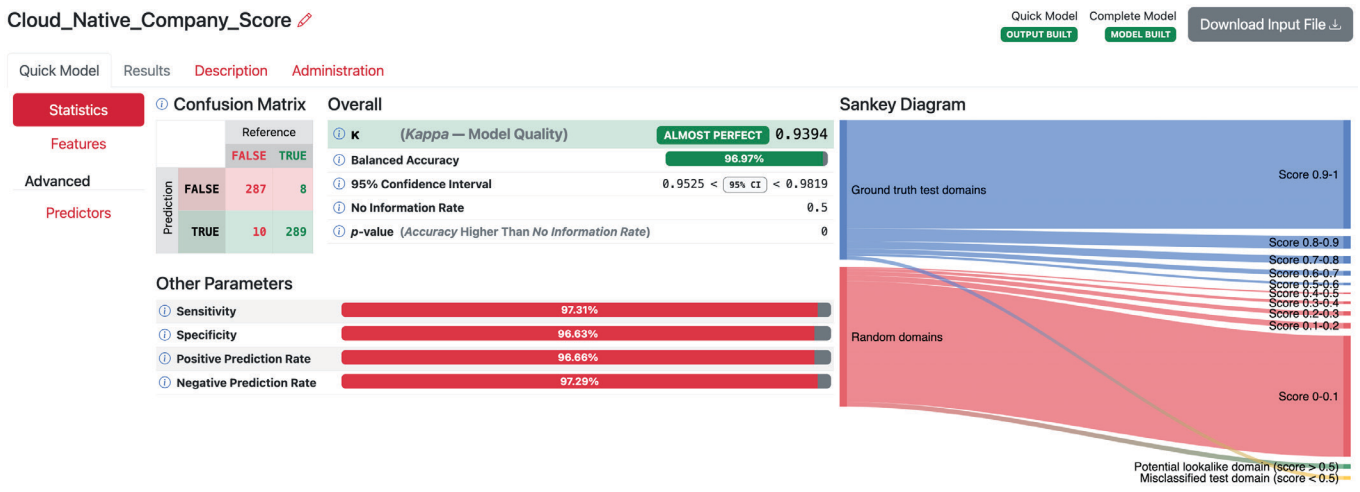
TAM Builder is a powerful tool designed to address specific needs and pain points faced by businesses conducting B2B prospecting. Unlike traditional models that rely on generic firmographics, TAM Builder focuses on technographic attributes that are unique to each business, providing a more accurate and precise matching of similar domains. This tool is especially beneficial for businesses looking to identify specific types of companies to target.

TAM Builder offers unique features and capabilities that set it apart from similar tools in the marketplace. It exclusively focuses on B2B domain-level data, providing deeper coverage than competing engines. The size and history of the data warehouse also contribute to its uniqueness.

Businesses using TAM Builder have access to in-depth analytics and reporting functionalities. They can examine the model's performance, including predictors and features with their values and weights. The tool also provides an output file layout that can be easily integrated into CRM platforms and marketing automation systems, or support risk and compliance decisioning.

While TAM Builder offers simplicity in its service, the quality and similarity of the output domains depend on the quality and similarity of the input domains. Data scientists can utilize Tam Builder to accelerate their work in conjunction with proper data analysis.

TAM Builder provides a deep overview of results of the model that data scientists will appreciate: Details of the performance of the model:



FEATURES AND BENEFITS

Deeper insight

TAM Builder can also provide valuable insight into the size and potential of identified similar domains. By selecting the right input file of domains, businesses can obtain an accurate representation of the market opportunity. Additionally, Profound can enrich output domains for further segmentation and market sizing.

Proven results

TAM Builder has proven its value and results with numerous success stories and testimonials. For example, a global enterprise software company struggled to find Cloud Native companies to sell to until they used TAM Builder. By identifying 174k similar domains, they were able to plan and execute a successful global marketing effort.

Leverage Profound's DBI

The data warehouse powering TAM Builder, Profound's DBI (Digital Business Intelligence), has a 10-year history and unparalleled coverage and richness. TAM Builder combines machine learning with human curation to ensure data accuracy and relevancy.

The most up-to-date data

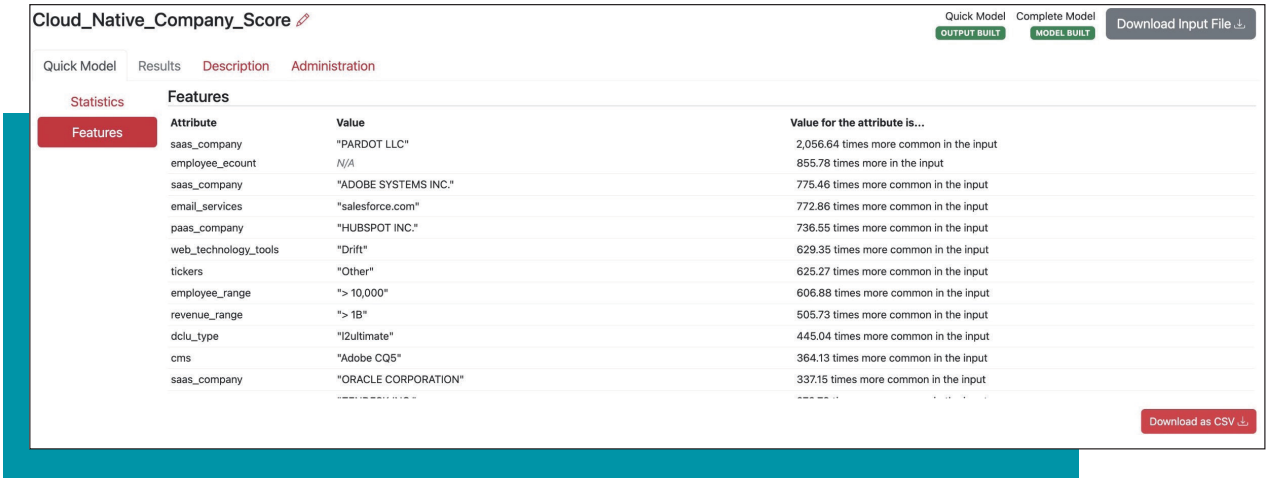
TAM Builder stays up-to-date through constant updates and additions. Our dedicated team of data scientists and engineers continuously work to improve the data warehouse, which contains historical data on hundreds of millions of domains.

Businesses can further optimize their prospecting strategies based on the insights derived from TAM Builder. Updated and curated lists of domains with tighter similarities can be fed back into TAM Builder for increased precision and better targeting. This continuous feedback loop allows businesses to refine their prospecting strategies and achieve better results.

TAM Builder essentially finds other domains that share similar details of internet infrastructure as the input domains used for training. This opens up additional use cases beyond marketing, such as identifying fraudulent websites. By researching and curating a list of websites that are set up to defraud the public, we trained a model to find and score their look-alikes. We discovered that these websites share certain characteristics that TAM Builder identifies. The result is a successful model that identifies and scores fraudulent websites and is maintained and updated regularly.

Optimize your opportunities

TAM Builder focuses on technographic attributes and providing accurate matching of similar domains. It offers unique features, deeper analytics, and reporting functionalities to track and measure the effectiveness of prospecting efforts. With its data accuracy, customization options, and continuous updates, businesses can rely on TAM Builder to optimize their prospecting strategies and identify new opportunities in the market.



USE CASE

Marketing

A global enterprise software company struggled to find Cloud-native companies to sell to. There were only 800 domains available that were designated "Cloud Native". They used TAM Builder to identify 174k similar domains, and after diligent testing, the organization used this data to plan and execute a global marketing effort with outstanding results.

Additional Deep Dive Capabilities

DBI - DIGITAL BUSINESS INTELLIGENCE

Profound's Digital Business Intelligence Database (DBI) contains a global network reference file of 300+ million unique domains of which 90+ million are unique business or organizational domains. DBI also provides details on each domain's associated websites and network. Empirically built and based on years of research, DBI analyzes 4 billion routable IP addresses, 300+ million domains, and 12 billion unique subdomains and refreshes them monthly or at specific intervals if required. This massive volume of rich data within DBI can be used to better identify opportunities to drive your business forward.

DBI can uncover unique insights about an organization's rate of network growth, use of e-commerce, cloud computing, managed services providers, web analytic solutions, online customer acquisition, and much more. DBI can be used to support sales, marketing, competitive intelligence, research, compliance, and analytics for companies that market technology as well as telecom-focused solutions and financial services products, to name a few.

HOW IT WORKS

Input: You determine the target audience based on the use-case challenges you are looking to solve

Output: Profound will create a custom DBI deliverable that can include up to 300 technographic data attributes and scores

The DBI process is a real-time, dynamic, machine-to-machine process that is not reliant on processing output from a static database. With the ability to collect, store and refresh data on a dynamic cadence you require, DBI can build and update profiles on demand, ensuring the most up-to-date information based on the triggers you want monitored and the frequency of updates that you require.

DBI enhances any pre-existing data set with rich technographics and custom scores by analyzing a network's footprint. DBI can also generate granular 'ideal client profiles' from white space on a global basis, enabling you to identify and target organizations that are poised for growth. Because it's empirically built, and the data can be tracked back for up to 10 years, DBI is suited for model building, trend analysis and campaign targeting.

FEATURES AND BENEFITS

Global census of the public-facing internet

Technographic snapshot of the digital footprint of a company's public facing "tech stack".

Track growth of cloud networks

DBI tracks where subdomains are hosted, uncovering a company's network of cloud vendors. This provides key insight that points to the degree of cloud adoption versus a continued investment in on-premise technologies or those taking a hybrid approach.

Track device counts and map routable IPs to business networks

DBI captures changes dynamically each month in all our profiles going back two years, and on request, up to 10 years. Device counts that 'roll up' to public-facing routable IPs are an indication of an on-premise infrastructure. DBI tracks changes like these—and others—and calculates a Network Growth score, providing unique insight.

IP-driven digital Account-based Marketing (ABM)

Profound's unrivaled mapping of IPs to a location-based business allows us to deliver specific technographic profiles, even when traditional firmographic sources are missing or unreliable across an enterprise's global organizational footprint.

Ultimate_Domain Library®

You can achieve a comprehensive global snapshot of a company's total network environment once all of an enterprise's related domains are mapped and identified. This allows you to better support business intelligence risk and ABM applications for optimum allocation of resources.

DBI API

#	API Field Name
1	advertising
2	backlinks_count
3	city
4	cloud_provider
5	cms
6	company_name
7	country_code
8	cybersecurity_grade
9	datestamp
10	dbi_density_current_qtr
11	dbi_density_previous_qtr_1
12	dbi_density_previous_qtr_2
13	dbi_density_previous_qtr_3
14	device_count_current_qtr
15	device_count_previous_qtr_1
16	device_count_previous_qtr_2
17	device_count_previous_qtr_3
18	device_count_previous_qtr_4
19	device_count_previous_qtr_5
20	device_count_previous_qtr_6
21	device_count_previous_qtr_7
22	domain

#	API Field Name
23	domain_classification
24	domain_classification_score
25	domainrank_current_qtr
26	domainrank_previous_qtr_1
27	domainrank_previous_qtr_2
28	domainrank_previous_qtr_3
29	domainrank_previous_qtr_4
30	domainrank_previous_qtr_5
31	domainrank_previous_qtr_6
32	domainrank_previous_qtr_7
33	ecommerce
34	employee-ecount
35	external_links_homepage_count
36	external_links_level2_count
37	first_seen_date
38	hosting_company
39	hosting_domain
40	hosting_range_domain
41	ip_block_owner
42	ip_block_owner_domain
43	isp_flag
44	isp_free_email_flag

#	API Field Name
45	local_links_homepage_count
46	local_links_level2_count
47	mail_server
48	mail_server_domain
49	mail_server_ip
50	mail_server_provider
51	name_server_domains
52	name_servers
53	network_growth_pct
54	redirect_domain
55	social_networks
56	ssl_certificate_expiry_date
57	ssl_certificate_grade
58	ssl_certificate_issuer
59	hosting_range_domain
60	ip_block_owner
61	ip_block_owner_domain
62	isp_flag
63	isp_free_email_flag
64	local_links_homepage_count
65	local_links_level2_count
66	mail_server

#	API Field Name
67	mail_server_domain
68	mail_server_ip
69	mail_server_provider
70	name_server_domains
71	name_servers
72	network_growth_pct
73	redirect_domain
74	social_networks
75	ssl_certificate_expiry_date
76	ssl_certificate_grade
77	ssl_certificate_issuer
78	state_province
79	subdomain_count
80	subdomain_networks
81	url
82	web_analytics
83	web_server_count
84	web_server_type
85	web_technology_widgets
86	website_ip
87	website_security_score
88	whois_created_date

The domain: A unique key for matching online and offline attributes

The domain can be a primary business website, a branded entity of a business, or a hostname with a network behind it. The domain is the bridge between offline and online data assets, and a prerequisite to produce Profound DBI elements.

Domains in DBI include 3 high-level categories:

- **Organizational Entity Domains:**
  Includes Corporate, Non-Profits, Educational, Government, Military, Hospitals, Labor unions, and other organizational entities. Some valuable domains may not have an active website, but are included because there is a substantial network or other technical value behind them. For example, myvzw.com does not have a website, but is the network Verizon Wireless uses for over 17 million internet-connected smartphones.
- **Non-Organizational Domains:**
  Blogs, Games, Music, Photo, Individual, Hobby, mature audiences, among others
- **Inactive Domains:**
  Parked, Under Construction, Login page only, Error such as 404, DNS, Unauthorized access, etc.

CSV Analyzer

The CSV Analyzer is an online tool that provides a listing of DBI attributes with global counts, top values and data dictionary.

You can try out the CSV Analyzer here:
http://pfn.to/dbi2023q2

Ad spend values and countries covered

Country	SEO Value	Num Paid Keywords	Monthly Ad Budget 202305
Num PPC Keyword	Top SEO Keywords	Number Of Advertisers	Monthly Ad Budget 202304
Num SEO Keyword	Average Ad Position	Organic Clicks Per Month	Monthly Ad Budget 202303
PPC Age	Daily Adwords Budget	Organic Domain Ranking	Monthly Ad Budget 202302
PPC Budget	Daily Organic Traffic Value	Paid Clicks Per Month	Monthly Ad Budget 202301
PPC Clicks	Keyword Count	Paid Domain Ranking	Monthly Ad Budget 202212
SEO Age	Keywords	Monthly Ad Budget 202306	Num Organic Keywords
SEO Clicks	Monthly Adwords Budget	Top PPC Keywords	
The following countries are covered: AU, BR, CA, DE, ES, FR, IE, IN, IT, MX, NL, SG, UK, US			

SAMPLE USE APPLICATIONS LEVERAGING DBI AND IP ANALYTICS

Profound can develop DBI data samples for your evaluation, not to be operationalized, to support specific use cases and applications. Let us know what you need and our support team will work with you to generate random, cross section data samples.

Use Case: KYC fraud detection and supply chain

- DomainRank™ provides ranking for global influence and visibility. Part of the meta data of DomainRank™ includes which domains are backlinking to each other. There are 360 billion such backlinks tracked. This often reveals the digital supply chain of an online business: customers, vendors, partners, suppliers, etc.
- Backlinks reflect commercial activity
- Profound's IP Analytics API identifies proxy servers, anonymization services, IP GeoLocation (useful for flagging countries on the State Departments sanctions list) and VPN services among other use cases.

Use Case: Risk evaluation leveraging Cyber Analytics

- External and internal links—reflect commercial activity
- DBI Density Score—reflects network complexity
- SSL cert quality
- Email server encryption levels
- Subdomains—reflects online activity and migration to cloud services
- Cyber Security grades—strength or exposure that can impact the overall health of the network and credit risk of the business

Use Case: Sales and marketing

- Specific DBI attributes can be bundled into specific product offerings, for example:
- Fastest growing networks anywhere on the globe
- Largest networks anywhere on the globe
- Network IT stack
- Specific customer lists for AWS, MSFT Azure, Workday, Slack and many other IT vendors

Use Case: Web visitor identification

- Map an IP address, email address or domain and output the company identity data
- Offer in real-time milliseconds or via batch web log processing with turnaround time in hours or days, depending on the size of the input file

Use Case: Digital advertising

- Create custom global audience segments built around IP addresses mapped to domains and enterprises that can be sold through the LiveRamp channel

Use Case: Historical files to build scores and models

- Up to ten (10) years
- Can provide snapshots for specific points in time for many of the above applications

EMPLOYEE eCOUNT

Sizing data for private sector businesses, particularly in emerging growth markets, is scarce and challenging to attain and maintain. Often it is so highly-modeled that it is merely directional. Given this challenge, Profound has designed a method to build and maintain a deterministic, global, and consistent proxy for employee size: Employee eCount.

With over 59 million unique domains with an Employee eCount, Profound's proprietary data resource is fast becoming a global contender. Since the domain is a requirement, this naturally filters virtually all "paper" companies. The result delivers actively operating businesses with an online presence.

The Employee eCount tracks the number of unique B2B email usernames per unique domain (not per company) that our MX-Check platform "sees" during the hygiene process. This attribute provides a deterministic baseline for employee count size for that domain at an organization – the idea is that many businesses provide their employees with a unique email address at their custom business email domain.

Combined with our proprietary Domain Linkage library, multiple domains that share the same Ultimate Domain have an employee size metric with previously unavailable granularity. The table below for Berkshire Hathaway, a complex conglomerate, illustrates this concept.

Favicon	Domain	type	Ultimate_Domain	l2 domains	Employee eCount
	geico.com	l2ultimate	berkshirehathaway.com	geico.com	59,708
	shawfloors.com	child	berkshirehathaway.com	shawinc.com	16,059
	shawinc.com	l2ultimate	berkshirehathaway.com	shawinc.com	14,914
	berkshirehathaway.com	ultimate	berkshirehathaway.com	berkshirehathaway.com	14,631
	benjaminmoore.com	l2ultimate	berkshirehathaway.com	benjaminmoore.com	10,390
	berkshirehathawayhs.com	child	berkshirehathaway.com	bhhs.com	9,471
	bnsf.com	l2ultimate	berkshirehathaway.com	bnsf.com	9,200
	netjets.com	child	berkshirehathaway.com	berkshirehathaway.com	8,491
	businesswire.com	l2ultimate	berkshirehathaway.com	businesswire.com	7,990
	kraftheinzcompany.com	l2ultimate	berkshirehathaway.com	kraftheinzcompany.com	7,803
	pamperedchef.com	child	berkshirehathaway.com	berkshirehathaway.com	7,476
	ttiinc.com	child	berkshirehathaway.com	berkshirehathaway.com	6,739
	bhhscalifornia.com	child	berkshirehathaway.com	bhhs.com	6,327
	cort.com	l2ultimate	berkshirehathaway.com	cort.com	6,108
	helzberg.com	child	berkshirehathaway.com	berkshirehathaway.com	5,778
NFM	nfm.com	child	berkshirehathaway.com	berkshirehathaway.com	5,537
	bhhscal.com	child	berkshirehathaway.com	bhhs.com	5,518
	lubrizol.com	child	berkshirehathaway.com	berkshirehathaway.com	5,276
	flightsafety.com	child	berkshirehathaway.com	berkshirehathaway.com	5,019
	pacificorp.com	child	berkshirehathaway.com	brkenergy.com	4,833
S	sees.com	child	berkshirehathaway.com	berkshirehathaway.com	4,607
	pccstructurals.com	child	berkshirehathaway.com	berkshirehathaway.com	4,047
	duracell.com	l2ultimate	berkshirehathaway.com	duracell.com	4,032
	Berkshire has 4,292 children domains and 27 Level 2's. Total Employee eCount:				**354,686**

Number of Employees: 372,000 (2021)

Note: According to Wikipedia, Profound's combined numbers are within striking distance.

Profound's process for generating the Employee eCount, ranging from large publicly traded conglomerates all the way down to single-owner micro businesses, is exactly the same on a global level.

This contrasts with traditional compilers that deploy different sizing methods:

- Modeled employee size scores for smaller businesses in the US and Canada largely based on trade tape data
- Self-reported regulatory filings data on public companies. SEC.gov/EDGAR/
- Self-reported Business registration data provided to the State or country at the formation stage of a business
- Licensing 3rd party data for geographies that are out of reach

These processes yield an inconsistent Employee Size metric prone to changes that cannot be described in detail because there are too many moving parts behind an opaque process. They also generate a large number of "paper" companies that exist purely for a financial reason or even for a single transaction. A paper company may issue a bond to its parent company, or it may finance a real-estate transaction. They don't trade. They don't have a website. For KYC and AML, there is some marginal value.

There are three methods Profound uses for computing the Employee eCount per unique domain:

Method 1: MX-Check

Profound's proprietary email validation platform that processes over 1 billion global B2B email addresses per year, including duplicates, provided by our trusted enterprise partners.

As of April 2023, MX-Check has processed:

Unique Domains	B2B Emails Validated	Total Unique Emails Seen
59,760,929	**118,729,864**	**387,333,281**

This platform produces two types of results:

Type 1: Validated
B2B email usernames at domains are those that are not at "catch-all" email servers, and that pass the SMTP deliverability check. When we see a deliverable email user name we increment +1 to that domain. If a previously deliverable email username becomes undeliverable, we decrement -1 to that domain. We end up with an integer representing unique deliverable email addresses per domain.

Type 2: Seen
These are the unique email addresses at all domains, including Catch-All configured email servers. Catch-All is an optional email configuration that always returns a valid SMTP response whether or not the email is deliverable. Catch-All configurations create a challenge because we do not get a decisive deliverability outcome. In these cases, we count all unique email usernames at the domain. These are tagged as "seen" and should be considered a maximum employee value.

Method 2: Direct validation of Google and Microsoft served email servers

Catch-all email servers that are hosted by Google and Microsoft will receive a secondary API driven validation check. This greatly reduces the catch-all results.

These methods produce email addresses which are filtered and processed through MX-Check and when new unique deliverable usernames are processed, the Employee eCount numbers get incremented accordingly.

Caveats

Employee eCount is deterministic, and it is not based on soft modeled data, yet there are known factors and caveats to keep in mind. The Employee eCount is correlated to the number of unique email addresses distributed within their organization. With this in mind, we list important distinctions with more traditional employee size firmographics:

- Companies that have large numbers of brokers or affiliates often provide their email domain to their affiliates who are legally not employees. Remax.com and Coldwellbanker.com are two examples.
- Universities and educational institutions typically give their students a .edu email address. Separating students from administration/faculty/employees at the email level is generally not feasible, so Employee eCount numbers pertaining to educational institutions are frequently inflated, because they include students.
- Some companies never retire their email addresses. When an employee leaves, the email never bounces but either builds up in the inbox, or forwards to another account. This policy inflates the Employee eCount metric. Heavy turnover at these businesses will further increase the level of count inflation. ibm.com is one example.
- Some employers do not assign an email address to each and every employee. Particularly those companies that require large numbers of seasonal blue-collar workers. Walmart.com, Amazon.com, Homedepot.com, Pizzahut.com are several examples where Employee eCount numbers fall significantly below published employee size numbers.
- The input files for MX-Check processing are limited to our trusted contributors. We specifically exclude unvetted sources in order to keep the data clean. This inherently reduces the maximum potential coverage, but at the same time, it limits inflated bogus counts as well. We err on the side of caution, but the results indicate robust coverage.
- Companies that assign employee email addresses to the same domain as freely-provided emails can have hugely inflated numbers—for example, yahoo.com and aol.com. In other cases, such as Comcast, we separate the email domain comcast.com which is reserved for employees, from comcast.net which is provided to their subscribers.
- Government institutions do not always provide a custom email address to all of their employees, so these numbers are often lower than actual.
- Only companies that provide their employees with a custom email domain have signal. MX-Check rejects all B2C email addresses such gmail.com and hotmail.com, etc. Very small entities that don't register an email domain are therefore not included.
- There are some companies, even large publicly traded companies, that do not appear to use their primary website domain for email. As an example, the US restaurant chain, Bojangles.com has hundreds of locations and thousands of employees, but only a single email username surfaced in our process.

Method 3: Web Seen

Email addresses "seen" on the web are passed to MX-Check for validation only and are never released to the public. It's used as another validation check point when it matches a client-provided B2B email address. It is also a factor for Employee eCount computations.

In many cases where the entity does provide an email address to each employee, the delta between Employee eCount and actual employee size is often exceptionally close:

domain	Employee eCount	Public employee count	Absolute diff eCount vs Public count	eCount Public Count delta	Public employee count Source URL
stdavids.com	10,611	10,600	11	0.10%	https://careers.hcahealthcare.com/pages/st-davids-healthcare
ccsd.net	40,048	40,000	48	0.12%	https://www.ccsd.net/divisions/human-resources-division/licensed-personnel
upmc.com	92,191	92,000	191	0.21%	https://en.wikipedia.org/wiki/University_of_Pittsburgh_Medical_Center
goarmy.com	480,037	481,254	1,217	0.25%	https://www.linkedin.com/company/goarmy/about/
acs-inc.com	24,772	24,700	72	0.29%	https://en.wikipedia.org/wiki/Xerox
dteenergy.com	10,332	10,300	32	0.31%	https://en.wikipedia.org/wiki/DTE_Energy
novelis.com	11,044	11,000	44	0.40%	
lincolnelectric.com	10,042	10,000	42	0.42%	https://en.wikipedia.org/wiki/Lincoln_Electric
assai.com.br	10,056	10,001	55	0.55%	https://www.linkedin.com/company/assaiatacadista/about/
investorsgroup.com	10,060	10,000	60	0.60%	https://www.linkedin.com/company/igwealthmanagement/about/
siemens.com	301,177	303,000	1,823	0.61%	https://en.wikipedia.org/wiki/Siemens
areva.com	16,117	16,000	117	0.73%	https://en.wikipedia.org/wiki/Orano
giustizia.it	10,077	10,001	76	0.75%	https://www.linkedin.com/company/ministero-della-giustizia/about/
kellogg.com	31,304	31,000	304	0.97%	https://www.statista.com/statistics/247496/number-of-employees-of-the-kellogg-company-worldwide/
mindtree.com	23,583	23,814	231	0.98%	https://en.wikipedia.org/wiki/Mindtree
illinois.gov	10,111	10,001	110	1.09%	https://www.linkedin.com/company/state-of-illinois/
bayer.com	98,555	99,637	1,082	1.10%	https://en.wikipedia.org/wiki/Bayer
globallogic.com	24,726	25,000	274	1.11%	https://en.wikipedia.org/wiki/GlobalLogic
southernco.com	29,331	29,000	331	1.13%	https://en.wikipedia.org/wiki/Southern_Company
uscourts.gov	29,620	30,000	380	1.28%	https://www.uscourts.gov/statistics-reports/annual-report-2021
riotinto.com	44,410	45,000	590	1.33%	https://en.wikipedia.org/wiki/Rio_Tinto_(corporation)
airtel.in	18,180	17,917	263	1.45%	https://en.wikipedia.org/wiki/Bharti_Airtel
telkom.co.za	15,333	15,099	234	1.53%	https://en.wikipedia.org/wiki/Telkom_(South_Africa)

This table compares Employee eCount with reliable/reputable employee size data from sources including:

- Public company filings (SEC EDGAR)
- Self-reported on company's own website
- Wikipedia
- LinkedIn employee indicators

For every domain with an Employee eCount of 10,000 or more, Profound does a deeper dive on the results. Our data research team reviews high quality, transparent, and alternative employee count metrics in order to identify the most extreme differences in Employee eCount and published Employee Size counts. The above table lists the closest deltas. For deltas to be this close for a single domain, we conjecture the company typically assigns all of their employees to a single email domain. When the delta is distant, the rationale usually falls into one of the caveats listed above, or multiple email domains must be aggregated, via the Ultimate_Domain Library®, to arrive at the top line number – as the Berkshire Hathaway example illustrates.

favicon	domain	Employee eCount	type	l2ultimate_domain	ultimate_domain
	disney.com	180,716	l2ultimate	disney.com	thewaltdisneycompany.com
	disneycareers.com	68,701	child	disney.com	thewaltdisneycompany.com
	thewaltdisneycompany.com	27,603	ultimate	thewaltdisneycompany.com	thewaltdisneycompany.com
	abc.com	24,175	l2ultimate	abc.com	thewaltdisneycompany.com
	espn.com	23,857	l2ultimate	espn.com	thewaltdisneycompany.com
	abcnews.com	12,675	child	abc.com	thewaltdisneycompany.com
	disneystore.com	11,312	child	disney.com	thewaltdisneycompany.com
	pixar.com	6,837	l2ultimate	pixar.com	thewaltdisneycompany.com
	disneyconsumerproducts.com	6,326	child	disney.com	thewaltdisneycompany.com
	disneycruise.com	5,480	child	disney.com	thewaltdisneycompany.com
	lucasfilm.com	4,688	child	lucasarts.com	thewaltdisneycompany.com
	startv.com	4,549	child	thewaltdisneycompany.com	thewaltdisneycompany.com
	disneyme.com	3,723	child	disney.com	thewaltdisneycompany.com
	disneyanimation.com	3,651	child	disney.com	thewaltdisneycompany.com
	wdtvpress.com	3,618	child	thewaltdisneycompany.com	thewaltdisneycompany.com
	blueskystudios.com	2,759	child	disney.com	thewaltdisneycompany.com
	disneylandparis.com	2,757	child	disney.com	thewaltdisneycompany.com
	21cf.com	1,976	child	thewaltdisneycompany.com	thewaltdisneycompany.com
	bamtechmedia.com	1,963	child	thewaltdisneycompany.com	thewaltdisneycompany.com
	disneystreaming.com	1,869	child	disney.com	thewaltdisneycompany.com
	hotstar.com	1,447	child	thewaltdisneycompany.com	thewaltdisneycompany.com
	disney.co.za	1,419	child	disney.com	thewaltdisneycompany.com
	starwars.com	1,069	child	lucasarts.com	thewaltdisneycompany.com
	dig.com	1,062	child	thewaltdisneycompany.com	thewaltdisneycompany.com
There are 5,172 Children, 11 Level 2 Ultimates, and 1 Ultimate Domain. **Employee eCount** = 413,643 for the Walt Disney Company digital family. 09/2022					

Disney is another well-known company illustrated in the above example.

DIGITAL INDUSTRY CLASSIFICATION: NAICS

Domain to Industry Classification

Profound leverages Natural Language Processing (NLP) and other statistical methods to map and score industry classification by extracting textual details from the source of truth, the company's own website. A dynamic process indexes over 100 million unique websites and B2B links such as *About Us*, *What We Do*, *Products and Services*, and other pages of company (or organizational entity) website that contains descriptive text about the business. The result is a coarse, but very broad, industry classification across tens of millions of unique websites. In addition to Natural Language Processing of textual website content, Profound tracks links coming from and pointing to linked websites to infer relationships between organizations that frequently cluster around the same industry.

This dynamic, fully automated, location-independent, multi-language industry classification tool based on website content covers primary languages representing 85% of global GDP. Profound prioritizes adding languages based on GDP and customer demand. Profound will return, where available, up to three distinct NAICS codes for the line of business based on textual extraction from website along with our confidence codes.

				Three separate global GDP Statistics in USD millions					
	Country/Territory	Official Language	Region	IMF	Year	United Nations	Year	World Bank	Year
	World		-	93,863,851	2021	87,461,674	2020	84,705,567	2020
☑	United States	English	Americas	25,346,805	2022	20,893,746	2020	20,936,600	2020
☑	China	Chinese	Asia	19,911,593	2022	14,722,801	2020	14,722,731	2020
☑	Japan	Japanese	Asia	4,912,147	2022	5,057,759	2020	4,975,415	2020
☑	Germany	German	Europe	4,256,540	2022	3,846,414	2020	3,806,060	2020
☑	India	English;Hindi	Asia	3,534,743	2022	2,664,749	2020	2,622,984	2020
☑	United Kingdom	English	Europe	3,376,003	2022	2,764,198	2020	2,707,744	2020
☑	France	French	Europe	2,936,702	2022	2,630,318	2020	2,603,004	2020
☑	Canada	English;French	Americas	2,221,218	2022	1,644,037	2020	1,643,408	2020
☑	Italy	Italian	Europe	2,058,330	2022	1,888,709	2020	1,886,445	2020
☑	Brazil	Portuguese	Americas	1,833,274	2022	1,444,733	2020	1,444,733	2020
	Russian Federation	Russian	Europe	1,829,050	2022	1,483,498	2020	1,483,498	2020
	South Korea	Korean	Asia	1,804,680	2022	1,637,896	2020	1,630,525	2020
☑	Australia	English	Oceania	1,748,334	2022	1,423,473	2020	1,330,901	2020
	Iran	Farsi	Asia	1,739,012	2022	939,316	2020	203,471	2020
☑	Spain	Spanish	Europe	1,435,560	2022	1,281,485	2020	1,281,199	2020
☑	Mexico	Spanish	Americas	1,322,740	2022	1,073,439	2020	1,076,163	2020
	Indonesia	Bahasa Indonesian	Asia	1,289,295	2022	1,058,424	2020	1,058,424	2020
	Saudi Arabia	Arabic	Asia	1,040,166	2022	700,118	2020	700,118	2020
	Netherlands	Dutch	Europe	1,013,595	2022	913,865	2020	912,242	2020
☑	Switzerland	English;German;French;Italian	Europe	841,969	2022	752,248	2020	747,969	2020
☑	Taiwan	Chinese	Asia	841,209	2022	669,324	2020	668,500	2020
	Poland	Polish	Europe	699,559	2022	596,618	2020	594,165	2020
	Türkiye	Turkish	Asia	692,380	2022	720,098	2020	720,101	2020
☑	Sweden	Swedish	Europe	621,241	2022	541,064	2020	537,610	2020
☑	Belgium	French	Europe	609,887	2022	521,861	2020	515,333	2020
☑	Argentina	Spanish	Americas	564,277	2022	383,067	2020	383,067	2020
☑	Norway	Norwegian	Europe	541,938	2022	362,522	2020	362,009	2020
	Thailand	Thai	Asia	522,012	2022	501,795	2020	501,795	2020
	Israel	Hebrew	Asia	520,703	2022	407,101	2020	401,954	2020
☑	Ireland	English	Europe	516,146	2022	425,889	2020	418,622	2020
☑	Nigeria	English	Africa	510,588	2022	429,899	2020	432,294	2020

☑	Primary language is covered
☑	English is **an** official language in India and Nigeria. Hindi is **the** official language in India. Hindi currently not covered.
☑	Websites in these countries frequently provide an English version.

For example, domain afcconstruction.com is a Canadian construction company. It was assigned the following three NAICS sectors:

- NAICS 23 (Construction) with a confidence of 0.770317
- NAICS 54 (Professional, Scientific, and Technical Services) with a confidence of 0.808596
- NAICS 56 (Administrative Services, Support Services, Waste Management and Remediation Services) with a confidence of 0.823091

The way to interpret the table on page 34 is that the industry selection for afcconstruction.com has:

- A 77% confidence in NAICS 23
- An 80% confidence in NAICS 23 and/or 54. This produces a lift of 3% from the first one
- An 82% confidence in NAICS 23 and/or 54 and/or 56. This produces a 5% lift from the first option

Given these 3 options, a strong initial confidence in NAICS 23, and the marginal lift in the confidence of 54 and 56, we would recommend selecting NAICS 23 exclusively. The wider the lift of the subsequent NAICS codes, the more likely the business operations serve multiple industry classifications.

- Several classifications may be provided; the one with the highest confidence score will always be in the first position.
- Classification for languages other than English typically have lower confidence scores due to the fine tuning we implement for English. As improvements to classification and training data of non-English content are made, the confidence scores are expected to increase.
- Many websites have a native English version (or other supported language) that is evaluated for NAICS assignment. For example, if a website from Morocco offers Arabic and French, the system will find and process the French website version, which is supported.
- The system does not use translation services of any kind; only text published on the website itself.
- Profound includes a custom NAICS number "99" which means the website's content could not be matched to a NAICS. This is different from a NULL value which means that there was no website or content to be matched whatsoever. See the table below.
- NAICS mapping is at a minimum a 2-digit code. NAICS with a second and third NAICS will also be delivered, where available. Some businesses are not limited to a single industry.
- The NAICS field in your database should accommodate up to a 6-digits to allow for future expansion of NAICS granularity.
- All improvements in NAICS coverage, granularity, and accuracy are included during any license period.

NAICS 2 digit code	Description
11	Agriculture, Forestry, Fishing, Hunting
21	Mining, Quarrying, Oil, Gas Extraction
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and warehousing
51	Information
52	Finance and Insurance
53	Real Estate, Rental, Leasing
54	Professional, Scientific, Tech. Services
55	Mgmt. of Companies & Enterprises
56	Administrative, Support, Waste Mgmt., Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)
92	Public Administration
99	*Not enough content to classify*

Batch File NAICS deliverable with lanuguages found on website domain

Data field Name	Definition
Domain	The website or email domain
naics1code	The primary NAICS code with the highest confidence score
naics1precision	The primary NAICS confidence score ranging from 0 to 1.
naics2code	The secondary NAICS code with the highest confidence score
naics2precision	The secondary NAICS confidence score ranging from 0 to 1.
naics3code	The tertiary NAICS code with the highest confidence score
naics3precision	The tertiary NAICS confidence score ranging from 0 to 1.
Languages	The language(s) that the website content is written in.

Optional DBI Enrichment

Company name	As published on the company website
Street address	As published on the company website
City	As published on the company website
State/province	As published on the company website
Postal code	As published on the company website
Country	As published or inferred on the company website
Company phone	As published on the company website
Domain classification	Business or language flag – see Domain Classification table in DBI

Domain classification score	0 to 1. Similar to a percentage. E.g., ".96" is 96% accurate.
WHOIS date	The date that the domain was registered with WHOIS
WHOIS country	The country that the domain was registered in according to WHOIS
Profound 1st seen date	The date that the domain was first seen by Profound.
Domain IP address	The IP address of the website hosting the domain.
Domain IP address cc	The ISO-3166 2-character Country Code where the IP address of the website is physically hosted.

CYBER ANALYTICS

With cyber crime growing at a rapid pace, organizations need to continuously assess their network vulnerability and security. Cyber Analytics is a comprehensive global business tool that evaluates the security measures for millions of records. It provides a digital, empirical snapshot of critical external components of a company's public network that can be utilized to build models/scores or to leverage a Cyber Security Grade to assist in your decisioning process.

Cyber Analytics uses a numerical rating system that evaluates the security measures of millions of global businesses. It analyzes 300+ million global domains, making it one of the most comprehensive security assessment solutions available on the market. With cyber crime predicted to cost over $10.5 trillion globally by 2025[1], and websites, email servers and other digital assets at risk, Cyber Analytics delivers critical insight to help you protect your business.

Every organization is vulnerable

The outlook for cybersecurity in 2023 continues to worsen, with new figures claiming that data breaches worldwide have almost tripled between the first and second quarters.

Research from VPN provider Surfshark[2] found 110.8 million accounts around the world were breached in Q2 2023, as compared to 41.6 million in the first quarter of the year. Almost half of those breached in Q2 were based in the US (49.8 million), with Russia coming in second with 15.3 million accounts breached, followed by Spain (3.7 million), France (3.4 million), and Turkey (2.8 million). In terms of breach density (the number of breached accounts per 1,000 residents), the previous top three nations again lead the way, followed by Finland and Australia.

How does Cyber Analytics work?

Profound's Digital Business Intelligence (DBI) covers over 300 technographic signals tied to a domain. This digital footprint reveals a network's strength or vulnerabilities. This data drives predictive performance for 6 of the top 10 Global IT brands and many companies in the financial sector.

Several DBI attributes contribute to a business' online Cyber Security Risk profile. The attributes include the strength of the TLS/SSL certificate which handles encryption on the website. This is particularly important if the business is running eCommerce or transferring sensitive information like passwords. The email server's security is also examined. This is important to prevent phishing attacks, malware, spam and viruses.

If a company has a poor Cyber Security Grade, they have not taken the basic precautions to secure their website and/or their email infrastructure—and are deemed high risk accounts. Alternatively, if a company has a high grade, they have taken adequate steps to protect their network and digital assets. This does not mean they are immune to cyber crime since there are several factors including company and employee behavior that also impact a network's security.

[1] *Ene, C. (2023, February 22). 10.5 Trillion Reasons Why We Need A United Response To Cyber Risk. https://www.forbes.com/sites/forbestechcouncil/2023/02/22/105-trillion-reasons-why-we-need-a-united-response-to-cyber-risk/?sh=1b80e5223b0c*

[2] *Maddison, L. (2023, August 3). Data breaches have seen a huge rise in 2023 so far. https://www.techradar.com/pro/data-breaches-have-seen-a-huge-rise-in-2023-so-far*

HOW IT WORKS

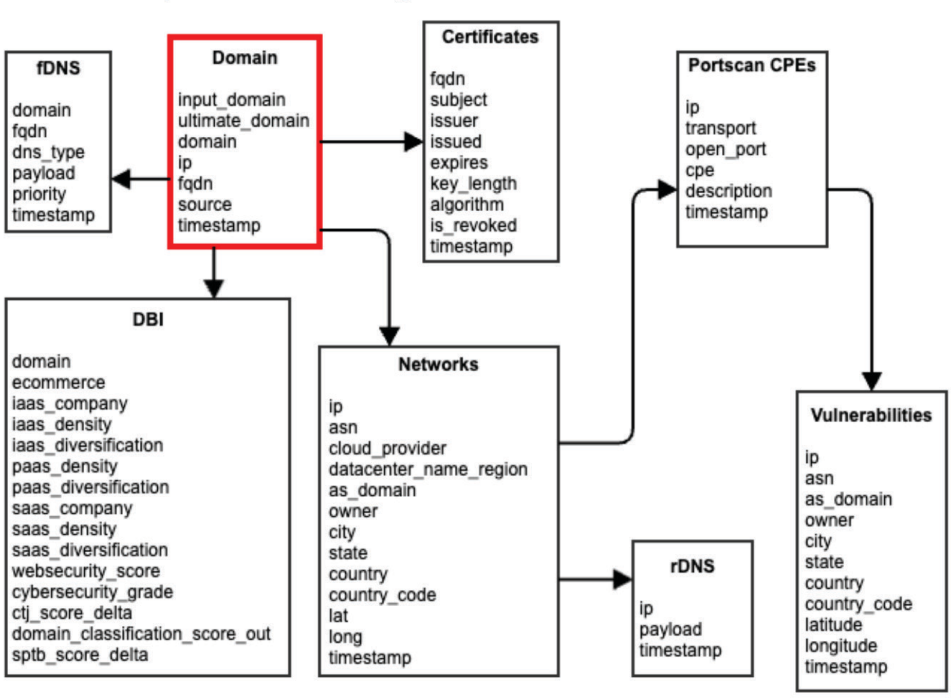
Input: List of domains or company names and addresses via Batch API

Output: Input file plus Cyber Analytics data fields with description

Cyber Analytics can help companies in a range of verticals make more informed decisions.

- Provides security software companies the ability to reach businesses with the most exposed networks to offer security consulting, patches and upgrades
- Allows insurance companies to evaluate their current cyber security portfolio
- Provides insight to credit bureaus and other businesses to assess network security, giving them better intelligence for risk and decisioning
- Allows insurance underwriters to accept or reject new business and adjust/set correct premium rates based on level of risk
- Enables insurance brokers to add value to their client relationships by offering a forensic cyber review to ensure they have a secure network that can potentially lower their premium rates
- Offers financial institutions the ability to assess overall risk in determining loan and credit card decisioning

IP Analytics Schema



KEY INSIGHTS

Domain Append
- Append domain to customer/prospect lists to link the physical record to their digital footprint
- Add Cyber Security Grade and technographic Digital Business Intelligence (DBI) details
- Monitor for changes over time

Mail Server Security
- Determines if a company is leveraging email security capabilities such as SPF, DKIM, MTA-STS, DMARC and others
- Determines if a business has no/low email security features

SSL Certificates
- Factors encryption algorithm, key length, certificate expiration date, vendor, enhanced validation, and more
- Key brands with high/ low encryption can be identified
- Number of domains with no SSL Certificates can be identified

E-Commerce
- Domains with eCommerce set-up can be identified
- Number of eCommerce domains with no SSL Certificates can be identified. A major red flag.

DBI Density Score History
- Reflects network sophistication and investment
- DBI Density 55+ count (high level)
- DBI Density <20 count (low level)
- Identifies Cloud Providers: when combined with network growth this data provides insight to determine on-premise vs. cloud investment

Historical Data
- Up to eight years of historical data available
- Number of network devices provides valuable information for determining trends
- Network growth percentage/decline over last 12 months

External Links and Back Links
- Reflects commercial network activity with other networks
- Represents a measure of digital health. Sites where change occurs indicate the site is receiving updates; those sites that are not updated are stagnant

Profound DomainRank™
- Ranks the most influential and popular global domains
- Methodology scores and ranks each domain
- Shows a domain's internet visibility based on the quantity and quality of links between domains

KEY BENEFITS

- Provides the most comprehensive baseline for global cyber security scoring available
- Evaluate customers, suppliers and other online relationships based on their network Cyber Security Grade
- Leverage technographic DBI attributes to develop or improve models and scores to assign online risk and identify fraud
- Identify prospects and new relationships based on their level of online security
- Adds another key factor to help determine the overall health of a business based on how an organization manages their online presence
- Use as alternative assessment criteria when traditional firmographic data and/or payment history data is not available or unreliable

DOMAINRANK™

Methodology

DomainRank™ identifies the global linkage across all websites, including more obscure domains that are typically not entered into a browser. These domains are enormously influential because millions of high-quality domains link to them. For example, DomainRank™ lists google-analytics.com as the second most influential domain on the Internet. Tens of millions of websites leverage this service, but it is not a popular web destination for any site traffic monitoring service or the general public.

Stability

DomainRank™ is updated monthly, however, over time the list becomes much more stable. Over the course of a month, the DomainRank™ top 1 million domains are 95.3% consistent and over a year, 74.2% consistent. The DomainRank™ 5 million domains are **70% consistent** over the course of a year. By comparison, the Alexa Top 1 Million was about **18% consistent** over the course of a year. (The Alexa Top 1 Million terminated publishing in May 2022.)

Stability is important in time series analysis and predictive analytics. Massive fluctuations of domain sets reduce its viability for time series modeling and large scale predictive analytics.

FEATURES AND BENEFITS

Global coverage

A comprehensive database of over 300+ million domains; covers all countries and industries.

Monthly updates

Get valuable insight with the ability to track changes in domains and relationships over time. We can provide a snapshot with over two years of history.

Discover new Market entrants

Uncover information on growing companies by observing changes in strategic relationships.

Identify important influencers

Analyze network topology and the relationship of domains to identify trends and key prospects.

Quantify competitive differences

Measures online activity of one or more competitors with side-by-side comparisons over specific time periods.

KEY DIFFERENTIATORS BETWEEN DOMAINRANK™ AND OTHER WEBSITE POPULARITY RESOURCES

Ordinal ranking vs. logarithmic scoring

This graphic below shows that facebook.com ranks higher than baidu.com—and that is all. Is facebook.com ten times more popular than baidu.com? 12% more popular? It is impossible to know based on an ordinal ranking. In contrast, DomainRank™ contains the logarithmic score for each domain (the ordinal rank is also provided), so by comparing the two DomainRank™ scores, you can see the precise difference in rank.

Looking at facebook.com and baidu.com, there is a 3.5 times greater chance of unique domains leading to facebook.com than baidu.com. This provides much more insight than merely stating that facebook.com is #3 and baidu.com is #4. The term "leading" means that there are direct links and indirect links leading to a domain. Weight is given to domains that in turn have high quality domains leading to those domains recursively.

Domain	201808	YoY_growth	QoQ_growth	MoM_growth	Current_Rank
google.com	0.01568784	0.0639203	0.0404464	0.0104938	1
google-analytics.com	0.0141373	-0.0293541	0.0485388	0.0148486	2
googleapis.com	0.01280037	-0.0238497	-0.0100957	-0.00619793	3
facebook.com	0.0093308	-0.0611723	0.0378353	0.0141682	4
doubleclick.net	0.00779193	0.096278	0.0123226	0.00499262	5
twitter.com	0.005955914	-0.0332669	0.0318434	0.01808	6
parastorage.com	0.00384226	-0.129552	-0.0720844	0.00728231	7
godaddy.com	0.00357223	0.381828	0.036645	0.0112762	8
youtube.com	0.00354837	0.0074821	0.0132971	0.0117193	9
wordpress.org	0.00335868	-0.0251582	0.0251595	0.0130509	10
sedoparking.com	0.00301838	0.0148713	0.0105815	0.00572768	11
instagram.com	0.00275717	0.146956	0.0893499	0.038369	12
baidu.com	0.0026625	0.00243659	0.0201537	0.00728036	13
googlesyndication.com	0.00247758	-0.0258399	0.0163325	0.0072436	14
51.la	0.00243004	-0.0588029	-0.00141303	0.00984941	15
linkedin.com	0.00239288	0.183222	0.0644884	0.0356838	16
cloudfront.net	0.0023249	0.143711	0.0194323	0.00554537	17
facebook.net	0.00222538	-0.0987912	0.102422	0.0246804	18
gmpg.org	0.00218984	0.0309615	-0.0891873	-0.0467386	19
gstatic.com	0.002005529	0.107766	0.189957	0.00404872	20

DomainRank™ file sample from August 2018

IP ANALYTICS PREMIUM

IP Validation is critical for organizations in the financial and security sectors, as well as those with websites with e-commerce functionality. Profound's IP Validation service uncovers key information that is linked to an IP address. With robust quality checks that include mapping the address to a network, domain, and geo-location, the record is classified and a validity score is delivered. Organizations can then leverage the IPV score to improve their risk decisioning, mitigate fraud and meet compliance requirements.

IPV detects addresses utilizing bots, proxy networks, and TOR servers, and then flags the suspect IP addresses and scores them accordingly. IPV has classified over four billion IP addresses, and can be used as a standalone offering or in combination with other Profound services.

HOW IT WORKS

Input: IP address

Output: Domain, business name, address, phone PLUS validity score, digital linkage & key DBI attributes in flat file or API

CASE STUDY

Business Application: Ad Agency – Digital B2B Targeting
Customer: Global Advertising Agency

Situation

- Client offered a suite of digital advertising solutions to B2B clients.
- There was difficulty in identifying/mapping the IP ranges for businesses that utilized Account Based Marketing through Demand Side Platforms (DSPs).
- Access to B2B targeting outside the US via traditional cookies is extremely thin and presented a challenge when catering to globally-focused clients.

Solution

- Profound built a comprehensive process to identify all routable IPs tied to business domains along with rich technographics.
- Given the domain or domains tied to a business, Profound was able to map the correlating IP addresses and/or validate a client's pre-existing data set.

Results

- Validated IP ranges tied to businesses.
- Dramatically expanded targetable universe.
- Increased segmentation based on technographics.

WEB VISITOR ID

If you're driving site activity through SEO, paid search, or online advertising, having the ability to identify website visitors and customize their site experience can be a huge advantage. Profound's Web Visitor ID is an API-driven service that identifies web visitors in milliseconds, allowing you to render dynamic, relevant content that results in deeper levels of engagement and improved ROI.

Profound can take a list of IP addresses and append the record to include the domain, business name, geo/location, and IT insight that includes SaaS, PaaS and IaaS, web server counts, e-commerce providers, network growth and more. Companies can leverage this information to target high-value visitors with tailored web page content based on the technographic characteristics of the visitor.

HOW IT WORKS

Input: B2B email address

Output: Company name, address, company phone number, domain and/or technographic data attributes

FEATURES AND BENEFITS

Utilize real-time or batch processing

When real-time results aren't required, Profound can process batch visitor logs and return results daily, weekly, or monthly.

Uncover key IT intelligence

- Installed IT hardware and software; Full DBI profiles
- Scores on migration from on-premise to cloud services
- Opportunity and risk based on network growth and IT complexity

Make more strategic decisions

Key information can help you modify outbound marketing tactics, as well as provide insight to optimize your site for inbound activity and focus on high-value prospects.

Segment visitors into addressable groups

With unrivaled information on web visitors, you can better- target high-value prospects that are more likely to engage, and filter out those who may not.

Deliver customized content for maximum engagement-visitor experience

With more precise visitor profiles, you can customize the web experience with educational and informative content, special offers and more that can move high-value prospects down the sales cycle.

- Network service provider
- Business vs. residential location
- Geographic location based on IP address location, including latitude/longitude
- Global ISP

MX CHECK

Email has established itself as one of the most productive marketing tactics. But did you know that your online reputation can be dramatically damaged by high bounce rates? MX Check can be part of an effective email management and validation strategy that can minimize bounce rates and enhance delivery success.

HOW IT WORKS

Input: B2B email address

Output: email address PLUS deliverability score

FEATURES AND BENEFITS

Better segmentation

Classify emails into categories of optimum deliverability — business-to-consumer, free-email providers, or legitimate business addresses. Eliminate records to save money and significantly improve response rates.

Minimize risk

Reduce risk associated with Internet and Email Service providers by minimizing bounce-backs. MX Check analyzes complex server configurations and classifies the risk due to grey listing, Catch-all status, and more.

Improve results

Build high-quality segmented B2B email lists that can be leveraged more efficiently to drive greater sales results when DBI attributes appended to the record.

Tailored for your needs

Secure, scalable and customizable to provide confidence in the technology.

Optimize lead engagement with higher-quality records

MX Check's robust validation process includes a rigorous test of each MX server's response to determine an optimum deliverability score. Much more comprehensive than standard list cleansing, MX Check's easy-to-understand report enables organizations to fine tune marketing strategies for increased response and better ROI. It also enables you to define simple, yet robust rules that generate a high-quality record while minimizing uncertainty and risk.

During 2022 Profound globally processed over 1 billion B2B email addresses associated with 59 million domains.

Email	Username	Email Domain	Email Type	Primary MX Server	# of MXs	Deliverability	Response Code	Catch All	Service Provider	Email Error	Domain Error
edna.neuwirth@abbott.com	edna.neuwirth	abbott.com	B2B	viper.abbott.com	4	R	550	n	Abbott		Invalid User
alaburl@wyeth.com	alaburl	wyeth.com	B2B	mxa-00013f02.gslb pphosted.com	2	R	550	n	pphosted.com		Invalid User
sam@dnb.com	sam	dnb.com	B2B	uscwygtw01 dnb.com	4	G	250	y	D&B		
eve.rodriguez@upbna.com	eve.rodriguez	upbna.com			0	Y	-1				DNS Failure
amy.becker@donaldson.com	amy.becker	donaldson.com	B2B	mail.global frontbridge.com	2	BG	250	n	Microsoft Frontbridge		
a.porter@bankofamerica.com	a.porter	bankofamerica.com	B2B	kcmemail bankofamerica.com	4	BG	250	n	Bank of America		
sales@autodesk.com	sales	autodesk.com	B2B	cluster6.us messagelabs.com	2	G	250	y	Messagelabs	Distrib Email	
mailto-arangel1@@jnj.com	arangel1	jnj.com	B2B	nasmtp.jnj.com	4	BG	250	n	Johnson & Johnson	Fixed	
tim.victor@weyerhaeuser.com	tim.victor	weyerhaeuser.com	B2B	mail.global sprint.com	2	G	250	y	Sprint		
sally@gmail.com	sally	gmail.com	B2C	gmail-smtp-in.l google.com	6				Google		B2C

MX Check goes beyond just improving your in-box results. By utilizing additional technographic data, you can enrich your data to significantly improve campaign targeting with:

Global Location Database
Append deliverable email patterns to a company name, address, and phone where now you only have the email address.

DBI (Digital Business Intelligence)
Leverage legitimate email domains to enhance your records with over 300+ technology attributes and metrics.

DBI Scores
Target high-value accounts utilizing Network Growth, DBI Density Score and DomainRank™.

CASE STUDY

Business Application: SMB Lead Generation
Customer: Global Software Company

Situation
- Large Global Contact Database with name, address and contact email.
- Struggled with identification of SMB contacts vs. consumer contacts to position new software to the SMB market for new and upsell opportunity.
- High undeliverable rates were negatively impacting the client's online reputation.
- Sales segmentation required SMB distinction for marketing message and strategy.

Solution
- Profound processed all email contacts in the client's database to identify non-qualified, undeliverable records.
- Flagged all emails that were Free ISPs
- Appended Digital Business Intelligence (DBI) to all business IP emails to send targeted messaging based on technographic eco-system.

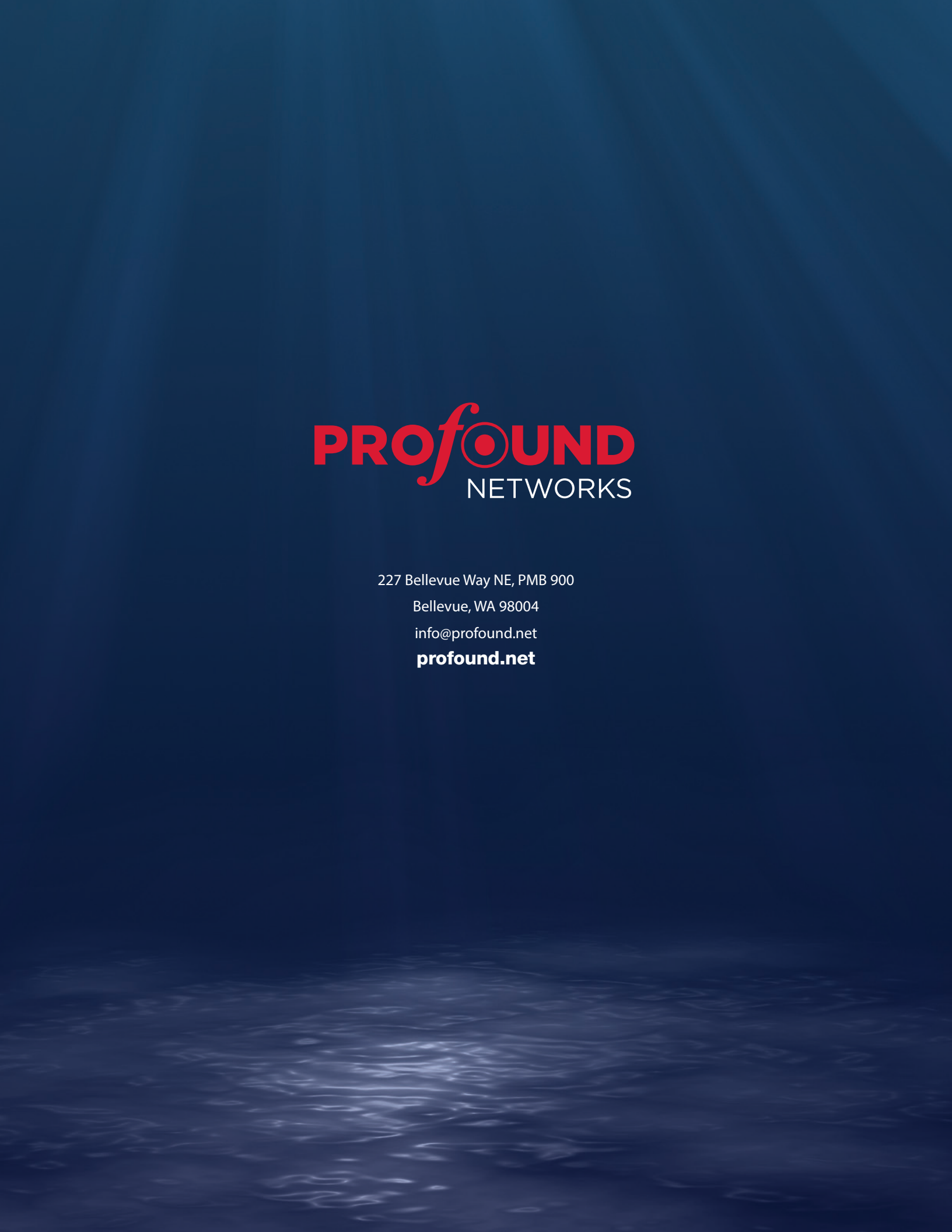
Results
- Identified 20% of contacts that were classified as consumer originally by client as SMB.
- Improved email deliverability rate by over 30% to insure online reputation was not affected by high bounce rate.
- Improved conversion to sales and overall campaign ROI to meet campaign goals.

PROFOUND
NETWORKS

Go deeper.

Let us show you how Profound can help you increase your sales, marketing and business success.

Reach out to us for an exploratory call at info@profound.net.



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