Link to

- Gap Analysis
- How and by whom can it be measured whether current goal(s) of existing accuracy requirements are met?

The Registration Data Accuracy Scoping team has established the following current state of accuracy (see hereunder) which aims to reflect the current way in which existing accuracy requirements are implemented by Contracted Parties and enforced by ICANN org. The objective of this exercise is for each group to identify gaps that exist between the current goal and current requirements and enforcement and their desired future state. As part of this gap analysis, you are asked to identify what problem(s) / needs are currently not addressed, as well as provide your insights into how this problem / need has already been documented or how it can be documented as part of the team's effort to scope the issue.

Deadline for input: at the latest 9 December 2021 (if input is received by 2 Dec, discussions may commence on that date)

Gap Analysis

Input from	**RrSG**
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	The EPDP for gTLD Registration Data established Purposes for which registration data are processed; the goal of accuracy requirements can be understood as supporting the ability to achieve these Purposes by ensuring that the registration data is valid. These Purposes include the ability to assign a domain to its owner, to establish communication with the domain owner, and to contribute to the maintenance of the security, stability, and resiliency of the Domain Name System in accordance with ICANN's mission. These Purposes cannot reasonably be fulfilled if accurate data is not associated with the registration record.
2. **How & by whom is it or can it be measured whether these goals are met?**	The registrar of record can measure accuracy based on: 1. Data validation and verification processes as required under the Whois Accuracy Program Specification, including verifying accuracy of new contact sets and requiring update if data is found to be inaccurate, e.g. if an email bounces back 2. Reports of inaccurate data from third parties (depending on outcome) 3. Domain owner inquiries related to outdated data (helping them update their own information to maintain accuracy)

	The registrar can measure accuracy rates to determine if this goal is met by tracking: 1. How many domains have registration data which is validated and verified, 2. How many domains have data which is currently in the verification process, and 3. How many domains are suspended due to non-verification.
3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	We do not believe that there are further goals for registration data accuracy requirements which have not been considered.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	We are unaware of legitimate problems or needs relating to registration data accuracy which are currently unmet.

Input from	**RySG**
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	Existing accuracy requirements and enforcement under the RAA Whois Accuracy Specification are trying to meet the goal of ensuring that registrants are contactable by registrars, and the data provided meets certain technical standards to ensure security and stability in operations. This is in line with the data processing Purposes identified by the EPDP.
2. **How & by whom is it or can it be measured whether these goals are met?**	The standards for accuracy for validated fields are identified in section 1(a)-(e) of the RAA Whois Accuracy Specification for each relevant field. The standards for verified fields are set out in section

	1(f). ICANN Contractual Compliance is charged with evaluating and enforcing contractual requirements. Third parties are contemplated in monitoring of accuracy under RAA Whois Accuracy Specification s 4.
3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	Goal: To be able to explain the concept of accuracy separately from the current implementation of accuracy in ICANN contracts. Problem: Currently there is no plain meaning of what "accuracy" is - only implementation of how to ensure accuracy in the RAA (Whois Accuracy Program Specification section 1) which requires the validation and verification of certain fields of registration data. Validation and verification to ensure correctness against a specified standard is the implementation of accuracy. Accuracy: the state of being precise or correct Accuracy of registration data: whether domain name registration data is correct when measured against a given standard. This standard may be a formatting or syntactical standard, functional standard, or another identified standard.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	The requirements regarding syntactical and operational accuracy are set forth in the RAA and enforced by Contractual Compliance, offering a real life snapshot of what is done to enforce and assess accuracy in registration data. Moving forward, we need to assess the Purpose for which a data element is collected and what is the standard against which accuracy for each data element is measured.

Input from	ISPCP
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	The goal of the accuracy requirements should be in line with purposes as defined by the EPDP.
2. **How & by whom is it or can it be measured whether these goals are met?**	The measures are and should be specified in the RAA.
3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	There do not seem any additional goals with respect to accuracy. Also, it is problematic to define additional goals beyone the processing purposes defined by the EPDP. However, additional work will be required to properly implement the EPDP recommendations, such as international data transfers. Operationally, the most important aspect is that the data - as provided by the registrant or account holder, is accurately processed by the contracted parties and not altered by technical flaws, human errors or external actors, e.g. in the context of cyber security threats.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	The GNSO Council should work on any upcoming issues and potentially launch additional policy. work. To the extent that problems arise in the context of the RAA, that would likely be contractual issues that might need to be covered by ICANN compliance.

Input from	NCSG

1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	a. ensure contactability between registrars and registrants. (operational accuracy) b. maintain the security, stability, and resiliency of DNS operations and management (syntactic accuracy) The above goals are to make sure that registration data processed by CPs and ICANN under the joint data controllership fall in line within the Purposes identified by the EPDP.
2. **How & by whom is it or can it be measured whether these goals are met?**	The registrars are under contractual obligations to ensure the accuracy of the registration data they process. According to the RAA Whois Accuracy Specification, registrars are obligated to a) validate the contact information related to the registered names are in proper formats and b) verify the contact information by acquiring affirmative response from the RNH via emails or the phone number provided by the RNH. As such, registrars are in the best position to measure whether the goals are met because a) they have legitimate purposes to process registration data (as outlined by EPDP) and b) they are bound by contractual obligations. ICANN compliance, based on its responsibility to enforce contracts, can also measure whether the goals are met by auditing, provided the controllership arrangements that ICANN and the CPS adequately provide for this oversight function.. ICANN appears to be the joint controller of the registration data. Depending on whether ICANN recognizes and accepts this role, the responsibilities/obligations of measuring and ensuring compliance can alter.

3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	NCSG is not aware of any additional goals. NCSG wishes to reiterate its position that any proposals/considerations of additional goals have to fall in line with the Purposes established in EPDP and comply with data protection laws. NCSG has also pointed out many times throughout the EPDP process, that from the data protection perspective, registration data must be examined throughout its life cycle, and the various parties that control it, to ensure that it complies with data protection law. Instead, we chartered the EPDP to examine the data that would be potentially available to third parties, following the historical pattern of the the WHOIS. THis has resulted in a number of operations being omitted from the kind of scrutiny that the EPDP applied to collection and disclosure (e.g. escrow, accuracy)
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	The GNSO council should examine the issue of registrant rights under GDPR, which flow through the entire ecosystem. This may require additional pdps, for which there will be little appetite at the moment.

Input from	**IPC**
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	That the information meets technical requirements and is contactable. That the contact information is meeting its practical purposes in terms of why parties are contacted. Phase 1 and Phase 2 of EPDP list specific purposes for data collection. It would be helpful to have a full compendium of purposes listed straight out for the working group as there 7 listed in EPDP, Phase 1 and at least 1 in Phase 2. And, in some of that language, there are implied if not direct purposes enumerated. It would be useful to sort out the implications of the language under these policies particularly the SSR purpose in Phase 2 including explicit and implicit purposes.

2. **How & by whom is it or can it be measured whether these goals are met?**	The information can be measured in 2 ways – 1) by the ICANN compliance function and 2) by the contracted parties who could self report aWe cannot speak to internal analysis of contracted parties but we can speak to the fact that ICANN has suspended its monitoring activities due to the feasibility of collecting the information under GDPR...this feasibility goes to how the data had been traditionally collected by ICANN under its suspended system Without that data, we cannot be sure that the goals are being met but presume they not since ICANN has suspended its monitoring. We are not aware of contracting parties who are publishing any regarding their accuracy auditing. During the WG plenary of December 9, the IPC asked this question directly of the RrSG and the RySG. The RrSG responded that they consider the internal accuracy checks and any corrections as the extent of the audit. However, the purpose of an audit function is to ensure compliance and provide data as to the quality of the data collected, not the explicit data per se. This is a critical part of ICANN's oversight function. The cessation of the Accuracy Reporting System (ARS) has left the community blind. The questions posed in the gap analysis response by the RrSG are a good start, but they need to be audited by an independent source and that is rightfully ICANN. They are reiterated below. ● How many domains have registration data which is validated and verified, ● How many domains have data which is currently in the verification process, and ● How many domains are suspended due to non-verification. Another useful question may include: of those validated and verified registrations – how many required corrections? This type of information would give the community insight as to the quality of information submitted and could indicate trends regarding possible bad actors. In order for ICANN to achieve its compliance mandate, it must negotiate legally valid data sharing agreements with the Contracted Parties. Recent implementation of privacy laws and legal decisions such as the ECJ's Shrems II have made this task difficult but achievable as many businesses are learning to navigate new data norms by implementing legally compliant programs. As the ARS depended on the use of publically available data, now it will have to be performed with non public data as part of an agreement that appropriately accounts for liability. ICANN should be able to warrant that it will protect the data as required under the law.

3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	Yes, there is a fundamental goal that is missing. As to whether the information is useful and that the contact details are connected to an actual, responsible party. The concept of "Know Your Customer" or KYC is going more important in the online world and it should be considered part of a good practice in the DNS and by extension, part of the accuracy analysis. By way of example, national trademark registries which were formerly open to any users now require identification verification for trademark filers. This same concept should be applied to the DNS and those who purchase domains. Domains serve a technical function and they serve a source indicating function. These 2 functions are not necessarily separable as we are concerned about the integrity of the name and that we have the means to address technical and functional considerations in terms of the whether the domain is suspected of being the target of or source for a variety of abuses including those abuses recognized by the Contracted Parties. While trademark registries can be differentiated because they exist due to the application of public laws rather than private agreements such as the RAA and RA, the concept of verifying those who apply for trademarks, whether the trademark owner or the agent for a trademark owner is the same. The world that we live in demands that we know our customers and that we contact them for a variety of purposes and those purposes include those enumerated in the EPDP – both implicit and explicit.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	IPC supports the responses submitted by ALAC and SSAC regarding the documentation of the problem. Further, upon inquiry to WIPO, we have learned that WIPO is not keeping data on the accuracy of records they are receiving based on the "John Doe" filings that are permissible under ICANN's current policies. We propose the development and implementation of such record keeping by alternative dispute resolution providers in order to assess the accuracy of the data we do hav, given that the WHOIS requests have been essentially shut off as well as the ARS auditing system. Such data could be qualitative/anectodal as well as quantitative.

Input from	BC
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	The WHOIS ACCURACY PROGRAM SPECIFICATION outlines the current requirements for validation and verification of registrant data to ensure contactability. It is not clear on what purposes are appropriate for use of the contact information. The purpose of the registrant data has been discussed for years but lack of clarity and agreement has left a division between those that collect the information and those that need to contact a registrant. The inability of Internet users to identify with whom they are doing business with online, and the increasingly pervasive inability of law enforcement, cybersecurity, and legal professionals to identify criminal actors online through their domain name registration data, severely undermines the security and stability of the Internet. The current goal is to enforce the existing policies. There is limited enforcement of the current accuracy requirements. The process requires "reporters" to inform ICANN to initiate a review and verification of the registrant data. With the ARS program on hold no proactive review is currently being conducted.
2. **How & by whom is it or can it be measured whether these goals are met?**	This should be measured by ICANN org. Resuming the ARS would be a good start in this endeavor. The last study of accuracy is over a decade old and would be very helpful to initiate another study. According to the RDS Review Team final report *The ARS had been the only proactive measure to monitor existing RDS (WHOIS) data quality. As analyzed in subsection 3.6.3.2, the current data quality issue disclosed by ARS confirmed RDS (WHOIS) data inaccuracy rate across the gTLD domain space is still high (30~40%) even without identity accuracy checks. The most common reported cause was that the registrars failed to validate and verify RDS (WHOIS) data in the first place.* Currently, it has not been decided which entity or entities is the controller of the data. This has impacted any proactive actions of review for accuracy as ICANN org will not access the registrant data for audits.

3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	The BC also share the same view points described in the GAC response to this question ***Overall**, some of the goals we believe have been overlooked are as follows:* *1. The definition of accuracy should include the purpose(s) for which registration data are collected/processed and in light of ICANN's mission;* *2. Accuracy should be considered in light of various laws, not just the GDPR;* *3. A more holistic interpretation of the RAA;* *4. Discussion on verification, validation, and correction.* The BC believes that for each disclosure the registrar should be responsible for validating the registrant information immediately before disclosing along with providing dates of when the data was previously validated in the history of the registration. Privacy Proxy registrant data should adhere to WAPS. Some registrars have been known to provide disclosure of the registrant data with the caveat that the registrant data from a proxy registration is delivered with a disclaimer that the information may not be verified. In support of the GAC's "overlooked goal" #2, the BC highlights the development of the NIS2, where EU lawmakers are seeking to address gaps in accuracy requirements. NIS2 directs EU member states to ensure that registrars, registries, and Privacy Proxy services have publicly available accuracy policies and procedures in place. Recent versions of the legislation also propose standards for accuracy verification processes, including a 'best efforts' approach.

4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	· The ARS program provided documentation of the accuracy previously. It should be resumed
	  · Audit of registrant data
	  · External studies
	  · Review of the existing accuracy requirements
	  · ICANN.org, registrars and registries

Input from	**ALAC**
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	The current accuracy requirements are embodied in the WHOIS Accuracy Program Specification (WAPS) within the Registrar Accreditation Agreement (RAA). This specification was added to the RAA at least partly due to the NORC study on WHOIS contact information accuracy (2010) and the first WHOIS Specific Review report (2012). The Specification is the result of bilateral negotiations between ICANN and the Rr SG and is clearly a compromise. https://whois.icann.org/en/accuracy provides an interesting description of this history. The goal was certainly to improve the accuracy of contact information which the studies had found to be inadequate. Due to the negotiated compromise, the ALAC does not believe that this goal was fully met. Specifically, the WAPS, largely for new registrations (details below), required validation of all contact fields but required verification of only one registrant field (which field at the registrar discretion and no requirement to indicate which field was verified). Moreover as noted, the WAPS only applied to new and changed domains (or those with reported errors) and not the entire installed base of registrations. Even syntactic validation of existing contact data, which could have been largely or completely automated, was not required. And there

	was no required periodic review that the verified contact information was still valid (email addresses often change and even telephone numbers go out of use). Lastly, the validation/verification need only be done within 15 days, and it is well understood that many domains registered for various abusive or fraudulent purposes are used and discarded well within the 15 days. WAPS also called for consistency checks, but it is unclear if this has ever been implemented or enforced. Until it was suspended, the Accuracy Reporting System (ARS) confirmed that there were still significant problems with many of the registrations sampled. The WAPS was reviewed in 2015 (https://www.icann.org/en/public-comment/proceeding/2013-raa-whois-accuracy-program-specification-review-14-05-2015). A planned revision of the WAPS was the outcome, but it is unclear if anything ever happened. So the original goal was to provide usable contact information to facilitate contact with the registrant. The negotiated WAPS addressed this to some extent. The ARS indicated that further enhancements to accuracy were still required, so the ALAC believes that the original goal was not met.
2. **How & by whom is it or can it be measured whether these goals are met?**	Measurement must be done by ICANN or by a third party under contract to ICANN. It makes no sense that, as some have proposed, the assessment be done by the same contracted parties who are responsible for collecting the contact data from registrants. This should be done until there is concrete evidence that the vast majority of all contact information is accurate and usable to facilitate contact with the registrant.

3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	Yes. The goal of the WAPS was to improve the poor level of accuracy by various studies. However, it only covered some of the contact details, and did not generally address existing registrations (where the original inaccuracies were detected). As an example, GDPR requires that data be accurate for the purpose for which it is collected. Contact information is collected to facilitate contact. Therefore, all contact information within WHOIS should be sufficiently accurate as to allow registrant contact. The goal should be that all contact information be demonstrably fit for purpose. In the real world, the "all" condition will never be satisfied, but we need to set the target where the vast majority registrations have (all) valid and operational contact details.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	The NORC study was arguably the first formal documentation of the problem, but the large number of accuracy complaints registered with Contractual Compliance predates that. Since that time, until the Temporary Specification effectively caused almost all contact information to disappear from public view, complaints and the ARS indicated that these problems still existed. Going forward, ICANN must reinstate a regular and verifiable review of contact information, performed by disinterested parties. In parallel ICANN should survey those who receive such information (via through publication or disclosure) to find out to what extent accuracy problems still exist.

Input from	GAC
1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	In order to answer this question we first have to understand what are the existing accuracy requirements and enforcement. We are not fully convinced that the current state (as described at the bottom of this document) captures accurately the 'existing accuracy requirements and enforcement'. We believe that there has to be a more holistic approach when capturing the current state of play and not limit our analysis to the WHOIS Accuracy Program Specification (WAPS). In particular, with regards to enforcement, information such as the following should be taken into account: According to ICANN Organization Enforcement of Registration Data Accuracy Obligations "*if the complaint is about identity (e.g., the registrant is not who they say they are), Contractual Compliance may ask the registrar to provide further information concerning their findings and the results of their investigation specific to the facts of the complaint. Contractual Compliance will typically close an inaccuracy case when the registrar demonstrates compliance with the investigation and validation or verification requirements, which may include the suspension or cancellation of the domain name registration*." The above passage demonstrates a link between inaccuracy and identity complaints ("the registrant is not who they say they are"). Moreover, when discussing existing accuracy requirements, various relevant purposes should also be taken into account: For instance, according to Section 4.6 para. (e) of ICANN Bylaws the following purposes have to be taken into account in the context of improving accuracy of gTLD registration data:

	"the legitimate needs of law enforcement, promoting consumer trust and safeguarding registrant data". In conclusion, in order to assess what are the goals of existing accuracy requirements and enforcement and whether they are met, the analysis should take a broader perspective than simply limiting to WAPS requirement and, among the others, consider: · the recent EPDP identified purposes for data collection. These, among others, include "the ability to assign a domain to its owner", and "to contribute to the maintenance of the security, stability, and resiliency of the Domain Name System in accordance with ICANN's mission". · ICANN's identification of the various purposes for which domain name registration data are used, such as: o To determine whether or not a given domain is available. o To contact network administrators for resolution of technical matters related to networks associated with a domain name (e.g., DNS or routing matter, origin and path analysis of DoS and other network-based attacks). o To diagnose registration difficulties. Registration Data Directory Service (RDDS or WHOIS) queries provide information that is often useful in resolving a registration ownership issue, such as the creation and expiration dates and the identity of the registrar. o To contact web administrators for resolution of technical matters associated with a domain name. o To obtain the real-world identity, business location and contact information of an online merchant or business, or generally, any organization that has an online presence.

	o To associate a company, organization, or individual with a domain name, and to identify the party that is operating a web or other publicly accessible service using a domain name, for commercial or other purposes. o To contact a domain name registrant for the purpose of discussing and negotiating a secondary market transaction related to a registered domain name. o To notify a domain name registrant of the registrant's obligation to maintain accurate registration information. o To contact a domain name registrant on matters related to the protection and enforcement of intellectual property rights. o To establish or look into an identity in cyberspace, and as part of an incident response following an Internet or computer attack. (Security professionals and law enforcement agents use Registration Data to identify points of contact for a domain name.) o To gather investigative leads (i.e., to identify parties from whom additional information might be obtained). Law enforcement agents use Registration Data to find email addresses and attempt to identify the location of an alleged perpetrator of a crime involving fraud. o To investigate spam, law enforcement agents look to the RDDS to collect information on the website advertised in the spam. See https://whois.icann.org/en/what-registration-data-used All the above have therefore to be taken into account when replying to question 1.

2. **How & by whom is it or can it be measured whether these goals are met?**	As noted by other SGs and ICANN's Accuracy Reporting System, the accuracy of the domain name registration data should be assessed in terms of 1) syntax; 2) operability; and 3) identity. The parties in direct relationship with the purchasers of domain names are best situated to initially confirm the accuracy of the contact information submitted (at the very minimum whether the contact email is functioning). It is the GAC's understanding that the RAA currently governs how these goals are met. ICANN compliance is responsible for enforcing the RAA and thus, as highlighted by other SGs, should play an important role, directly or via a third party, in the monitoring and enforcement phase. Third parties, including governments, can play a monitoring and reporting function when they believe they have obtained inaccurate data. In addition, third parties could be utilized to monitor, assess, and report on the efforts of contracted parties to obtain and verify accurate domain name registration data. As noted in SAC 058, "various studies that assessed the quality of domain name registration data have collectively shown that the accuracy of the data needs to be improved" (citing to National Opinion Research Center (2010), Draft Report for the Study of the Accuracy of WHOIS Registrant Contact Information at http://www.icann.org/en/compliance/reports/whoisaccuracy-study-17jan10-en.pdf and U.S. Government Accountability Office (GAO) (2005), Internet Management: Prevalence of False Contact Information for Registered Domain Names (GAO publication No. GAO-06-165), Washington, DC at http://www.gao.gov/products/GAO-06-165)

3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	Yes. The GAC shares the same concerns as some of the other SGs. **Overall**, some of the goals we believe have been overlooked are as follows: 1. The definition of accuracy should include the purpose(s) for which registration data are collected/processed and in light of ICANN's mission; 2. Accuracy should be considered in light of various laws, not just the GDPR; 3. A more holistic interpretation of the RAA; 4. Discussion on verification, validation, and correction. **In particular**: we believe that accuracy of registration data should not be defined based on a certain contractual practice of 2013, but in relation to the purposes for which those data are collected and processed. While the scoping team can certainly draw some inspiration of the accuracy as a general data protection principle under the GDPR, it should also not limit itself to the GDPR. Also purposes that are relevant to ICANN's mission (such as for instance promoting consumer trust and contributing to the maintenance of the security, stability, and resiliency of the Domain Name System) have been currently overlooked. For instance, one of Phase 1 purposes includes "*handling contractual compliance monitoring requests*". It is not clear how this purpose is met (see also input in question 4). Another issue that has been overlooked are other RAA relevant requirements which, although not limited on accuracy *per se,* may also cover accuracy:

	For instance, Section 3.7.2 of the 2013 ICANN Registrar Accreditation Agreement (RAA) states that "*Registrar shall abide by applicable laws and governmental regulations*" It is not clear how this is ensured and by whom. The GAC has expressed in communiques that "verification, validation and correction of all registration data by registries and registrars" is important to the security and stability of the Internet. The GAC welcomes further discussion of verification and validation, along with attendant risks and benefits.
4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	The GAC supports the input received by other stakeholder groups regarding overlooked goals, including (but not limited to) the pros and cons of additional mechanisms to ensure the accuracy of domain name registration data for existing as well as future registrations. One pertinent problem is that inaccuracy of registration data seem to be largely under-reported (see RDS – WHOIS2 Review/Final Report, section 3.6.3.2). Notably, the confirmed RDS (WHOIS) data inaccuracy rate across sampled domains is still high (30~40%). The Accuracy Reporting System (ARS) project, which started as an effort to address Recommendation #6 (i.e., to proactively identify inaccurate gTLD registration data, forward potentially inaccurate records to registrars for action, etc.), has only checked a small fraction of the whole gTLD domain space. Thus, there is reasonable ground to believe that the RDS (WHOIS) inaccuracy is largely under-reported.

	Moreover, the ARS was designed to be implemented through three Phases based on the types of validations described in the SAC058 Report (syntax, operability, and identity). (1) Phase 1: Syntax Accuracy (2) Phase 2: Syntax + Operability Accuracy (3) Phase 3: Syntax + Operability + Identity Accuracy Phase 3 has not yet started. According to the latest updates from ICANN Org, this was due to cost and feasibility issues arising from identity verification or validation. However, at the same time, ICANN org and potential complainants now lack direct access to registration data as a result of the GDPR, making it much more difficult to identify instances of registration data inaccuracy or to take action to correct them. According to a study published in January 2021 by InterIsle Consulting Group, at present, only 13.5% of domains have an actual registrant identified in WHOIS. Accuracy is a burning issue for the entire ICANN community and nevertheless remained unresolved in Phase 1 and Phase 2 despite being in scope. This in combination with the fact that Phase 3 of ARS never started and that there is a large number of data which we have no information on their accuracy makes it compelling to take action.

Input from	**SSAC**

1. **What is from your perspective the current goal that the existing accuracy requirements and enforcement are trying to meet?**	This is an important question. There appears to be a split within the group. There are four distinct conceptual levels. 1. The top level are the Needs of the users who access registration data. Their Needs are related to the problems they are trying to solve. 2. The next level are the Purposes as specified in EPDP Phase 1 and 2 reports. These are presumably intended to be sufficient to meet the Needs, and this is where a key split within the group shows up. Some, primarily in the contracted parties, think our remit is limited to accepting what is stated in the contracts and Phase 1 and 2 reports, and hence any discussion of a gap between Needs and Purposes is outside of the remit of this scoping team. In contrast, others, primarily not among the contracted parties, are looking for an opportunity to address the gap between their Needs and the listed Purposes. 3. The next level are the Requirements imposed on the contracted parties, i.e. what validation is required of each collected data element. In principle, if the contracted parties implement the Requirements, they will be sufficient to support the Purposes. 4. The fourth level are the Practices of each of the contracted parties. In response to the question as posed, i.e., "What is ... current goal that the existing accuracy requirements and enforcement are trying to meet?" the current goal seems to be only that the contractually required Practices are being carried out and meet the Requirements. Neither the Purposes nor the Needs seem to be part of the goal structure.
2. **How & by whom is it or can it be measured whether these goals are met?**	Prior to GDPR, ICANN Org's WHOIS Accuracy Reporting System (ARS) measured the level of compliance between the Practices and Requirements. ICANN Org suspended this system when the registration data stopped being available publicly. However, measurement of the accuracy of the registration collection process is surely a legitimate purpose within the rules of the GDPR (and all other privacy regimes.) ICANN should regain access to the registration data and resume reporting on the accuracy.

	As noted in the response to the next question, there will be a need for a variety of services that have trusted access to registration data. ICANN Org access to registration data for the purpose of checking the accuracy is perhaps the most basic example of such a service.
3. **Are there any goals that have been overlooked? If yes, please explain what additional goals should be considered in the context of accuracy requirements and why (what problem(s) / needs (s) are these goals expected to address)?**	Yes, there are multiple goals that have been overlooked. 1. Per element accuracy requirements. There should be an accuracy requirement for each data element. A scale of V0 = accept registrant input without restriction, V1 = validate that the data element meets the syntactic requirements for type of the data element, V2 = validate that the data element is operationally effective, V3 = validate that the data element is tied to the identity of the registrant or relevant contact. (Current rules do not require identity validation of any of the data elements, but some registrars may choose to validate the identity, and future uses may require it, so the full scale should be included in this scoping process. This does not imply any requirement; that will be a matter for the appropriate policy development process.) 2. Disclosure of the validation level of data elements returned in response to queries. The disclosure can be either in the form of explicitly tagging each data element or simply providing a statement that makes clear the validation level. 3. Inclusion of the date of last validation. 4. Explicit communication that multiple validation levels are possible and that each registrar may validate beyond the minimal requirement. Registrars may do so as part of a competitive offering and/or to improve the registrar's confidence as to who the customer is as part of a Know Your Customer program. 5. Trusted services that have access to the registration data and serve the needs of various segments of the community.

4. How and by whom have these problem(s) / need(s) been documented or how and by whom should it be documented?	Each of these has been discussed in a variety of fora and/or private discussions. This scoping process is to set the terms for a future policy development process, not to limit the possibilities. Justification of these goals properly belongs in the PDP, not in the scoping process.

After all goals / problems / needs have been synthesized, the next step in the assignment will be an analysis of these to further understand these goals / problems / needs and if/how further data can be obtained to measure these goals / problems / needs.

Current state:

Accuracy shall be defined as syntactical accuracy of the registration data elements provided by the Registered Name Holder or Account Holder as well as the operational accuracy of either the telephone number or the email address.

To be determined to be syntactically accurate, the contact must satisfy all requirements for validity (see Whois Accuracy Program Specification Sections 1b-d). For example, for email addresses all characters must be permissible, the "@" symbol is required, and there must be characters before the "@" symbol.

To be determined to be operably accurate, the contact must be operable as defined in the Whois Accuracy Program Specification Section f. The RAA currently requires validation of syntactical accuracy and verification of operational accuracy including an affirmative response from the Registered Name Holder for either email or phone.

How and by whom can it be measured whether current goal(s) of existing accuracy requirements are met?

Suggestions	**What is needed and by whom for the scoping team to obtain this information?**
The registrar of record can measure accuracy based on: 1. Data validation and verification processes as required under the Whois Accuracy Program Specification, including verifying accuracy of new contact sets and requiring update if data is found to be inaccurate, e.g. if an email bounces back 2. Reports of inaccurate data from third parties (depending on outcome) 3. Domain owner inquiries related to outdated data (helping them update their own information to maintain accuracy) The registrar can measure accuracy rates to determine if this goal is met by tracking: 1. How many domains have registration data which is validated and verified, 2. How many domains have data which is currently in the verification process, and 3. How many domains are suspended due to non-verification. (RrSG)	Registrars could report the results of their accuracy measurements (items 1-3 in the second list) to the Scoping Team. That said, it is not possible to require registrars to provide these data points; there is no contractual or policy obligation for them to track and disclose this information, and it is unlikely that there will be widespread voluntary provision of these data points as there is significant complexity, time consumption, and cost involved in gathering the data. Further, it is unclear whether the Scoping Team and broader Community will accept as accurate any data provided by registrars. A third party could independently measure these three data points; in order to do so they would first need lawful access to the registration data. This lawful access is unlikely to occur quickly (if at all, depending on jurisdictional concerns), and even if it is achieved there will still remain cost and time consumption concerns as registrars would still need to provide access to the data to that third party. Another option would be for ICANN to dedicate the next registrar audit to focusing on adherence to the Whois accuracy requirements; this could review collection and verification processes to ensure that data is appropriately validated and verified, without examining the data itself (thus removing the roadblock of getting third-party lawful access to the data). As an alternative or additional measure, we could review the number of accuracy complaints processed by the ICANN Compliance team, in context of the total

	number of registered domains, to have an understanding of the relative volume of complaints. This should also include the resolution reason for each complaint, and a review of the Whois "Quality Review" outcomes (through which the Compliance team looks at previously-suspended domains to determine if they remain suspended) to give a clear picture of the types of outcome occurring in these cases.
The standards for accuracy for validated fields are identified in section 1(a)-(e) of the RAA Whois Accuracy Specification for each relevant field. The standards for verified fields are set out in section 1(f). ICANN Contractual Compliance is charged with evaluating and enforcing contractual requirements. Third parties are contemplated in monitoring of accuracy under RAA Whois Accuracy Specification s 4. (RySG)	This assignment is a challenge because as currently drafted it separates out the first and second sections of the Gap Analysis. We can't discuss how to measure the current goals without having agreement as to what the current goals are and clearly enumerating them. A gap analysis is challenging if one doesn't know what goal they are measuring to. It isn't clear to us what the goal is and against what standard we are measuring them. However, responding in the framework of our response to question 1 of the Gap Analysis: *Existing accuracy requirements and enforcement under the RAA Whois Accuracy Specification are trying to meet the goal of ensuring that registrants are contactable by registrars, and the data provided meets certain technical standards to ensure security and stability in operations. This is in line with the data processing Purposes identified by the EPDP.* *Possible option to measure the goal of registrars being able to contact registrants:* ● *Ask registrars to keep track of the rate of email bounces for Whois Data Reminder Policy Notices sent out over a set time period.* *Possible option to measure whether technical standards are met to ensure security and stability in operations:* ● *Third party audit of existing data (note, issues with Data Protection Agreements). Registrars to self-report on what proportion of registrations meet the specified standards.*

	• *Could compare these results to the statistics provided by ICANN Compliance about Accuracy Complaints.*
Measurement must be done by ICANN or by a third party under contract to ICANN. It makes no sense that, as some have proposed, the assessment be done by the same contracted parties who are responsible for collecting the contact data from registrants. This should be done until there is concrete evidence that the vast majority of all contact information is accurate and usable to facilitate contact with the registrant. (ALAC)	**The original gap analysis asked: "How and by whom can it be measured whether current goal(s) of existing accuracy requirements are met?"** **This new table asks: "What is needed and by whom for the scoping team to obtain this information?"** **These are two very different questions. I do not believe that it will be possible for the scoping team to determine whether the current goals are being met in the time-frame that this group is expected to operate within. However, given more time, it may be possible to do this under the auspices of the scoping team.** **The ALAC has also made it clear that addressing the current RAA requirements may not be sufficient. The scope should be widened to not only cover new and changed domains, but the entire gTLD domain space (likely on a sampling basis) AND consideration must be given to widening the RAA requirements to other levels of verification as well as in fact implementing the cross-field requirements that to date have reportedly never been enforced.** **On to the basic question of how to do any of this. It is clear that for ICANN or an entity contracted by ICANN to assess accuracy, ICANN must have access to the data. This may be possible through Data Processing Agreements or Joint Controller agreements (all of which are in theory being discussed).** **If there is ANY belief that ICANN may not be entitled to have such access, this must be clarified through the European Data Protection Board noting that such access may still require adherence to trans-border data flow rules and the entity doing the analysis may be required to establish processing facilities in multiple jurisdictions.**

As noted by other SGs and ICANN's Accuracy Reporting System, the accuracy of the domain name registration data should be assessed in terms of 1) syntax; 2) operability; and 3) identity. The parties in direct relationship with the purchasers of domain names are best situated to initially confirm the accuracy of the contact information submitted (at the very minimum whether the contact email is functioning). It is the GAC's understanding that the RAA currently governs how these goals are met. ICANN compliance is responsible for enforcing the RAA and thus, as highlighted by other SGs, should play an important role, directly or via a third party, in the monitoring and enforcement phase. Third parties, including governments, can play a monitoring and reporting function when they believe they have obtained inaccurate data. In addition, third parties could be utilized to monitor, assess, and report on the efforts of contracted parties to obtain and verify accurate domain name registration data. As noted in SAC 058, "various studies that assessed the quality of domain name registration data have collectively shown that the accuracy of the data needs to be improved" (citing to National Opinion Research Center (2010), Draft Report for the Study of the Accuracy of WHOIS Registrant Contact Information at http://www.icann.org/en/compliance/reports/whoisaccuracy-study-17jan10-en.pdf and U.S. Government Accountability Office (GAO) (2005), Internet Management: Prevalence of False Contact Information for Registered Domain Names (GAO publication No. GAO-06-165), Washington, DC at http://www.gao.gov/products/GAO-06-165) (GAC)	**The GAC emphasizes the importance of holding contracted parties accountable for their compliance with the RAA's accuracy requirements and increasing transparency about compliance. This information would be invaluable to understanding the extent of inaccuracy under current requirements. It would be thus important that contracted parties are in position to demonstrate that they have procedures in place to ensure accuracy, (e.g. ensuring that the registrants confirm the accuracy of their data at the time of registration, through verification). One of the ways to obtain new metrics on this could involve a one-off study, or, the reimplementation of the ARS' completed phases 1 and 2 which would allow continuous accountability. Further reflection may also be needed in terms of Phase 3 of the ARS which was left incomplete.** **While the GAC generally may not be best placed to provide advice on how to obtain information for measurement, we do note that the lack of data available for measuring accuracy, as well as the lack of the ability to access such data or measure accuracy in any other way need to be addressed. The GAC supports the importance of agreeing to a definition of accuracy, and then proceeding to whether and how to measure that agreed definition, especially if it is more expansive than what is required under the RAA. There should also be a clear distinction of roles and responsibilities between ICANN and the contracted parties about the measurement of the accuracy of registration data, and such distinction should be reflected at the enforcement stage. For instance, ICANN should overcome any obstacles precluding it from exercising its lawful purpose of monitoring contracted parties' compliance with the accuracy requirements.** **If the scoping team is unable to agree on a definition of accuracy and what needs to be measured, the scoping team, at the very least, could study what constraints (e.g., legal, financial) exist to measuring and checking accuracy and**

	produce a report recommending further policy development for accuracy policies that would overcome these constraints.
Prior to GDPR, ICANN Org's WHOIS Accuracy Reporting System (ARS) measured the level of compliance between the Practices and Requirements. ICANN Org suspended this system when the registration data stopped being available publicly. However, measurement of the accuracy of the registration collection process is surely a legitimate purpose within the rules of the GDPR (and all other privacy regimes.) ICANN should regain access to the registration data and resume reporting on the accuracy. As noted in the response to the next question, there will be a need for a variety of services that have trusted access to registration data. ICANN Org access to registration data for the purpose of checking the accuracy is perhaps the most basic example of such a service. (SSAC)	

The registrars are under contractual obligations to ensure the accuracy of the registration data they process. According to the RAA Whois Accuracy Specification, registrars are obligated to a) validate the contact information related to the registered names are in proper formats and b) verify the contact information by acquiring affirmative response from the RNH via emails or the phone number provided by the RNH. As such, registrars are in the best position to measure whether the goals are met because a) they have legitimate purposes to process registration data (as outlined by EPDP) and b) they are bound by contractual obligations. ICANN compliance, based on its responsibility to enforce contracts, can also measure whether the goals are met by auditing, provided the controllership arrangements that ICANN and the CPS adequately provide for this oversight function.. ICANN appears to be the joint controller of the registration data. Depending on whether ICANN recognizes and accepts this role, the responsibilities/obligations of measuring and ensuring compliance can alter. (NCSG)	**It is unclear how answering 'from whom to get the information' can achieve answering the question 'how and by whom can it be measured whether current goal(s) of existing accuracy requirements are met'. The team needs further discussions to clarify and agree on what exactly the 'current goal(s) of existing accuracy requirements' are before attempting to tackle the question of measurement.** **That said, to the question of 'from where to get the information', we suggest:** **1. registrars might voluntarily share the process and results of their accuracy measurement. However, since there are no contractual or legal obligations for the registrars to do so, and without standardization of such shared information, how, if any has been shared, such information can be useful or trusted remains unclear.** **2. If there are audit requirements in the controllership arrangements between ICANN and the CPS and such audits have been conducted by ICANN compliance, the results should be published, absent a compelling rationale to protect competition.. Otherwise, ICANN compliance can share information about the numbers and context of accuracy complaints received.**
The entity in charge of measuring accuracy should be the registrar of record. The registrar is the entity that collects registration data and has the richest data set. Also, the RAA already spells out accuracy requirements, amongst others. As mentioned by the RrSG, the Whois Accuracy Program Specification, third party reports on allegedly inaccurate data and registrant data rectification requests are good indicators to measure	**Registrars could be asked to share aggregated data. Also, ICANN audits could focus on Whois accuracy and their findings could be reported to the scoping team.** **Any further measures will require ICANN to (finally) enter into data protection agreements with contracted parties and acknowledge the role of a (joint)**

accuracy. The total number of the different data points and changes thereto could be measured and compared to other registrars. Whilst it is not possible for registrars to share data with ICANN, the methodology by which accuracy shall be measured can be part of the ICANN requirements that registrars must meet. These can also be audited by ICANN. The lack of data protection agreements between contracted parties and ICANN and - to be specific - the lack of a joint controller agreements between ICANN and the contracted parties that could allocate the functional responsibility of either monitoring or auditing data accuracy measures to ICANN prevents any further measures. (ISPCP)	**controller. Absent such commitment, further thoughts on ICANN or a contractor hired by ICANN performing work in this regard are futile.**
The information can be measured in 2 ways – 1) by the ICANN compliance function and 2) by the contracted parties who could self report aWe cannot speak to internal analysis of contracted parties but we can speak to the fact that ICANN has suspended its monitoring activities due to the feasibility of collecting the information under GDPR...this feasibility goes to how the data had been traditionally collected by ICANN under its suspended system Without that data, we cannot be sure that the goals are being met but presume they not since ICANN has suspended its monitoring. We are not aware of contracting parties who are publishing any regarding their accuracy auditing. During the WG plenary of December 9, the IPC asked this question directly of the RrSG and the RySG. The RrSG responded that they consider the internal accuracy checks and any corrections as the extent of the audit. However, the purpose of an audit function is to ensure compliance and	**First, the IPC shares many of the concerns raised by others in addressing these questions including ALAC's concern over whether the time remaining will be sufficient for the Accuracy Scoping Team to determine whether current goals are being met. IPC also supports implementing the cross-field requirements that have yet to be enforced. As noted by the GAC that the three elements of 1) syntax; 2) operability; and 3) identity are those deemed necessary to assess the accuracy of domain name registration data according to ICANN's Accuracy Reporting System, serious consideration must be given, therefore, to widening the RAA requirements to other verification levels as well as identity validation of registrants and registrant organizations, given cases showing meaningful increases in fraudulent registration data submitted and because it would be misleading to label fraudulent data as accurate. As for practical considerations of what is needed by whom, IPC shares the GAC's consideration that while ICANN should obtain the necessary data by agreement to audit RAA compliance by the contracting parties, ICANN should also use third parties, including government, to monitor, assess, and report on the efforts of contracted parties to obtain and verify accurate domain name registration data. IPC notes that**

provide data as to the quality of the data collected, not the explicit data per se. This is a critical part of ICANN's oversight function. The cessation of the Accuracy Reporting System (ARS) has left the community blind. The questions posed in the gap analysis response by the RrSG are a good start, but they need to be audited by an independent source and that is rightfully ICANN. They are reiterated below. ● How many domains have registration data which is validated and verified, ● How many domains have data which is currently in the verification process, and ● How many domains are suspended due to non-verification. Another useful question may include: of those validated and verified registrations – how many required corrections? This type of information would give the community insight as to the quality of information submitted and could indicate trends regarding possible bad actors. In order for ICANN to achieve its compliance mandate, it must negotiate legally valid data sharing agreements with the Contracted Parties. Recent implementation of privacy laws and legal decisions such as the ECJ's Shrems II have made this task difficult but achievable as many businesses are learning to navigate new data norms by implementing legally compliant programs. As the ARS depended on the use of publically available data, now it will have to be performed with non public data as part of an agreement that appropriately accounts for liability. ICANN should be able to warrant that it will protect the data as required under the law. (IPC)	**ICANN has done this before as shown in the NORC Whois Accuracy Reporting System Pilot Report of Dec 2014, where ICANN used private and public sector validation specialists with NORC at the University of Chicago to develop methodologies for validation that were deployed in the ARS. This approach is also consistent with the successful third party and government identity verification solutions used in Denmark in the management and oversight of its .dk country code TLD to substantially reduce online "webshops" selling counterfeit products and engaged in trademark infringement as noted in IPC's Position Paper on Accuracy of Registrant Data as of August 2021 and also discussed beginning at page 158 of the recently released January 2022 European Commission Study on Domain Name System (DNS) Abuse. This would provide a successful real world example of what can be done and by whom to gather data that can help inform the Scoping Team's deliberations**

This should be measured by ICANN org. Resuming the ARS would be a good start in this endeavor. The last study of accuracy is over a decade old and would be very helpful to initiate another study. According to the RDS Review Team final report *The ARS had been the only proactive measure to monitor existing RDS (WHOIS) data quality. As analyzed in subsection 3.6.3.2, the current data quality issue disclosed by ARS confirmed RDS (WHOIS) data inaccuracy rate across the gTLD domain space is still high (30~40%) even without identity accuracy checks. The most common reported cause was that the registrars failed to validate and verify RDS (WHOIS) data in the first place.* Currently, it has not been decided which entity or entities is the controller of the data. This has impacted any proactive actions of review for accuracy as ICANN org will not access the registrant data for audits. (BC)	**BC** **The ICANN community lacks the ability to track and measure the issue of accuracy. Relying on 3rd parties to proactively report accuracy issues now that GDPR has impacted the display of registrant data is a nonstarter. But a few compliance submissions for inaccuracy is not an indicator of a lack of a problem. The BC was able to point to many accuracy issues prior to GDPR and fully believe those issues still exist. Nothing has improved.** **We need to move forward with implementing the ePDP which will allow the access to the data when requested. This is now blocked by the lack of ICANN org in drafting the agreements necessary to implement the ePDP.** **We should continue to push the implementation of the RDS RT recommendations and encourage ICANN compliance to proactively review registrant data for accuracy.**