Addressing monetary means of private resolution

Final report

17 May 2024
Project Team

Dr. Hector Lopez, Director
Richard Marsden, Senior Managing Director
Julien Martin, Consultant

CONFIDENTIALITY

Our clients’ industries are extremely competitive, and the maintenance of confidentiality with respect to our clients’ plans and data is critical. NERA rigorously applies internal confidentiality practices to protect the confidentiality of all client information.

Similarly, our industry is very competitive. We view our approaches and insights as proprietary and therefore look to our clients to protect our interests in our proposals, presentations, methodologies, and analytical techniques. Under no circumstances should this material be shared with any third party without the prior written consent of NERA.

© NERA
Executive Summary

The Internet Corporation for Assigned Names and Numbers (ICANN) commissioned NERA Economic Consulting (NERA) to provide advice regarding the development of a practical mechanism to implement two goals in subsequent rounds of new gTLDs applications.

These two goals are:

1. Banning or strongly disincentivizing monetary means of private resolution, and
2. Allowing good faith joint ventures (JVs) while disincentivizing other means of private resolution, such as private auctions.

These goals are inherently in tension because forming a good-faith joint venture may require transfers between members to align partners' interests in a good-faith joint venture and compensate unwanted partners to avoid forced joint ventures.

As a consequence of this tension, this report presents one alternative (A) that fully achieves the first goal but sacrifices the second goal and two mechanisms (B and C) that balance the two goals:

A. **Auctions.** Applicants in contention must resolve contention using auctions (of last resort). Pre-application joint ventures are allowed, but post-application coordination and communication is discouraged.

B. **Formal process to support JV formation.** This process envisages a series of formal stages within ICANN’s application and resolution process in which applicants in contention may form and register joint ventures as the only means of private resolution.

C. **Imposition of fees for private resolutions.** Applicants in contention who use private resolution are required to pay a fee. Furthermore, joint ventures are the only acceptable private resolution method. These fees make it more likely that applicants will opt for the ALR instead of private resolution.

Mechanism A implements the most straightforward and common method of resolving contention while strongly disincentivizing monetary transfers between applicants but effectively bans all types of post-application private resolution.

Under mechanisms B and C, private resolution is limited to creating JVs, and the use of monetary transfers is limited to forming these JVs. Members of a JV are allowed to make monetary payments between shareholders or to other applicants to resolve contention. This approach strongly incentivizes applicants in contention to form good faith joint ventures while providing them with flexibility to avoid being forced into unwanted partnerships.

In the previous round, ALRs involved a transfer of value from the “coalition” of applicants in contention to ICANN, represented by the competitive price in the ALR. In contrast, private resolution allowed the coalition to retain and share the full value of the gTLD (and resources). As a result, applicants in contention had a strong incentive to use private resolution, collaborating to divide the expected payment in the ALR among themselves (winners and losers working together).
The three mechanisms proposed achieve ICANN’s goals by eliminating or reducing the asymmetry in the value applicants obtain from resolving contention by private resolution versus participating in the ALR:

- **Mechanism A** does this by eliminating the opportunity to use private resolution. Applicants resolve contention using ALRs without comparing the price paid in a competitive auction with the transfers under a private resolution arrangement.

- **Mechanism B** does this by introducing and managing the desired forms of private resolution as part of the ICANN process, while explicitly banning others. Coalitions of applicants in contention have a much lower incentive to resolve contention outside of the ICANN process if doing so exposes them to penalty and the outcomes they seek are achievable within the ICANN resolution process.

- **Mechanism C** does this by making private resolution more expensive. Increasing the cost of a behavior is a proven way to disincentivize it. This method also ensures a fairer treatment between coalitions using private resolution and the ALR. In the previous round of applications, coalitions that used the ALR contributed to the auction fund and, therefore, to the community, while coalitions that used private resolution did not. Under this proposal, all coalitions will contribute to the auction fund regardless of the resolution method.

Mechanism A is exclusive – allowing any type of private resolution, including joint ventures, will introduce some incentives and channels to use monetary transfers between applicants. Mechanisms B and C are not necessarily exclusive. For example, one could implement the formal Application stages of Mechanism A and impose a fee on applicants in contention that form JVs. A hybrid approach would lower the incentive to form JVs while increasing incentives for applicants in contention to proceed to an ALR, with the scale of incentives determined by the fee level. Therefore, mechanisms B and C, especially in combination, would mitigate some of the concerns around private resolution but cannot completely prevent the undesirable practices associated with private resolution.

The recommendations in this report are the product of collaborative work between NERA and ICANN in which multiple procedures were analyzed in a series of remote and in-person sessions.
1. **Introduction**

This report develops mechanisms to achieve two goals in subsequent application rounds for new gTLDs:

1. Banning or strongly disincentivizing monetary means of private resolution, and
2. Allowing good faith joint ventures while disincentivizing other means of private resolution (i.e., private auctions).

The mechanisms we develop are designed to increase the cost and decrease the benefit of monetary private resolution while increasing the benefit and reducing the cost of ICANN resolution. Figure 1 describes our approach to achieving these goals from an economic perspective.

In the previous application round, ICANN offered the Auctions of Last Resort as a resolution method while allowing applicants in contention to use private resolution methods. The most common private resolution method was private auctions, but other mechanisms, such as barter, were also used. The mechanisms we develop are designed to increase the cost and decrease the benefit of monetary private resolution while increasing the benefit and reducing the cost of ICANN resolution. Figure 1 describes our approach to achieving these goals from an economic perspective.

We identify three alternative award mechanisms that can achieve these goals:

A. **Auctions.** Applicants in contention must resolve contention using auctions (of last resort). Pre-application joint ventures are allowed, but post-application coordination and communication is discouraged.

B. **Formal process to support JV formation.** This process envisages a series of formal stages within ICANN’s application and resolution process in which applicants in contention may form and register joint ventures as the only means of private resolution.
C. **Imposition of fees for private resolutions.** Applicants in contention who use private resolution are required to pay a fee. Furthermore, joint ventures are the only acceptable private resolution method. These fees make it more likely that applicants will opt for the ALR instead of private resolution.

The three mechanisms presented in this report are the result of a three-step process undertaken collaboratively by NERA and ICANN:

i. We developed a list of high-level approaches with the potential to achieve the two desired goals. The full list is presented in Annex 1.

ii. We analyzed the list of high-level approaches based on their relative ability to:
   a. Disincentivize monetary means of private resolution;
   b. Allow good-faith joint ventures;
   c. Eliminate or reduce the compensation of losers in private resolution and the practice of losing bidders leveraging these funds to finance other applications ("funds rolling");
   d. Minimize ICANN’s implementation and enforcement costs; and
   e. Avoid increasing the cost of contention resolution.

These five factors are discussed in Section 2. Our assessment of the complete list of approaches is presented in Annex 1.

iii. We identified three mechanisms that combine elements of approaches that were scored highly as recommended options for consideration by the ICANN Board. Mechanisms A requires the effective ban of private resolution while mechanisms B and C can be implemented while maintaining private resolution.

Section 3 presents the three identified mechanisms and an explanation of why they scored highly.

### 2. Factors used to score high-level award approaches

In this section, we provide an explanation of the five factors used to assess high-level award approaches.

#### 2.1. Disincentivizing monetary means of private resolution

Disincentivizing a specific form of behavior involves reducing its benefit and/or increasing its cost. In the case of private resolution, the benefit to the applicants in contention is that they keep the money (i.e., the expected payment if they used the ALR) inside their “coalition.” Private resolution also involves a transaction cost, the expenses involved in negotiating an agreement to share payments amongst themselves.

The benefit of private resolution may be reduced, by:
• increasing the cost for the coalition in contention under private resolution; and/or
• reducing the cost for the coalition in ICANN’s resolution processes.

The cost may be increased by:
• restricting the mechanisms that can be used for private resolution; and/or
• enforcing penalties for deviations, thereby increasing transaction costs.

Private auctions that paid losers were prevalent during the last round because they allowed applicants in contention to find agreements to divide the price at a relatively low cost. Put differently, the incentive to engage in private resolution was high because there were no restrictions on private resolution and the projected price paid by the winner of the ALR was predictably much higher than the transaction costs involved in private resolution, thereby creating an obvious arbitrage opportunity.

In conclusion, mechanisms that most directly reduce the benefits or increase the costs of private resolution are the ones more likely to succeed in achieving the desired goals.

2.2. Allowing good-faith joint ventures

Although ICANN would like to discourage most private forms of resolution, it does support community members resolving contention through “good faith” joint ventures. We use the term good faith here to distinguish value-creating partnerships from situation from a “forced” joint venture, where a strong applicant partners with other applicant(s) in contention simply to reduce its costs of securing the gTLD.

Measures that encourage good-faith joint ventures are inherently in tension with ICANN’s other objective of disincentivizing monetary means of private resolution. This is because the formation of a good-faith joint venture may necessarily require transfers between members to align equity shares proportional to each member’s value contribution. Furthermore, in a situation where a JV wants to exclude an unwanted partner, monetary transfers may be the only way to avoid forced joint ventures.

For example, in a contention set with three applicants, the first and second may prefer to create a joint venture in which the first applicant pays the second, so that it secures a majority ownership. Furthermore, the first and second applicants may prefer to pay the third applicant rather than offer a share in the joint venture – and the third applicant may also prefer to be paid rather than receive a share in the joint venture.

One way to promote joint ventures as a private resolution method is to facilitate a ‘joint venture market’ in which all applicants participate concurrently to minimize the cost of searching and negotiating with other applicants in contention. This approach reduces the transaction costs of private resolution, contrary to the objective described in Section 2.1. Accordingly, if this approach is adopted, it is necessary to define the rules of the marketplace in a way that specifically promotes joint ventures and not other, undesirable, forms of private resolution.
2.3. **Eliminate or reduce the compensation of losers and funds rolling**

In the previous application round, some applicants were compensated for losing in private auctions. Furthermore, some applicants used the compensation funds they acquired to strengthen their negotiation positions in private resolution of subsequent contention sets, a practice we call “funds rolling”. ICANN would like to eliminate or reduce such practices.

Realistically, the practices of compensating losers and funds rolling will be present in any scenario where ICANN allows some form of private resolution – including joint ventures:

- The compensation of losers is a direct consequence of private resolution. In effect, private resolution methods transfer the value of a gTLD to the coalition of applicants in contention at zero cost to the group. The compensation of losers arises from the ability of each bidder to force an ALR in which the winner will pay a positive and competitive price in the ALR. The would-be winners and losers of the ALR have an incentive to structure side payments to keep the value in the coalition. As explained in Section 2.2, compensating losers is not always undesirable, as it may be a fundamental tool to avoid forced joint ventures.

- Funds rolling is a function of the liquidity and compensation size. Funds rolling will be present to some degree as long as participants can leverage their compensations to participate in other contention sets. Cash obtained in private auctions is the easiest to roll to a different gTLD. Shares in a joint venture or commercial contracts used in other forms of private resolutions could also be used as collateral to obtain loans or other liquid instruments to roll funds.

In private resolution methods, the compensation arises from strategic and fairness considerations. On the strategic side, the applicants with lesser values know that the applicant with the highest value will pay a portion of its value as a price if the contention is resolved using an ALR. Therefore, all applicants know that the applicant with the highest value will pay some amount to prevent resolution via an ALR. On the fairness side, all applicants have a “claim” on the gTLD which flows from the right to use private resolution (and not force an ALR), and surrendering this right requires compensation.

Compensation in private resolution methods can take many forms. In private auctions, compensation is a cash payment determined by auction. Within joint ventures, compensation will typically be in the form of an equity percentage. In a contractual resolution method, the applicant or applicants who win the gTLD can enter into contracts with the losing applicants to buy (or sell) goods and services at preferred prices and conditions.

Mechanism A is expected to reduce the compensation of losers to a minimum. However, since one of ICANN’s goals is to allow good-faith joint ventures, we expect to observe moderate compensation levels of losers and fund rolling under mechanisms B and C developed in this report.
2.4. Minimize ICANN’s implementation and enforcement costs

Any mechanisms that involve rules impose an implementation burden on ICANN. Rules that prohibit certain behaviors by applicants must be enforced, which may require additional costs to vet, challenge, bar and, if necessary, take legal action against transgressors or defend against legal challenges. Mechanisms that minimize such costs, subject to not undermining the core objectives, are desirable.

Implementation and enforcement cost varies significantly across mechanisms. For example, banning the use of monetary transfers in private resolution as part of the application process would be straightforward. However, enforcing such a rule may be prohibitively expensive as ICANN would need to monitor and audit agreements currently outside of ICANN’s purview. Analogously, the implementation of private resolution mechanisms without money (e.g. matching mechanisms as used for example for organ-donor trading) would involve very high implementation cost but have modest enforcement cost. Implementation in this case would entail the development of detailed rules, regulations and software, but enforcement would simply involve implementing the process. With respect to gTLDs, neither of these extremes of high enforcement costs or high implementation costs are attractive; mechanism that seek to moderate both types of costs are preferable.

The three mechanisms developed in this report minimize implementation and enforcement costs by introducing specific and limited changes to existing rules and regulations governing applications and contention resolution. The changes that minimize enforcement costs are developed in this section, while the implementation changes are described as part of the description of the mechanisms.

To minimize enforcement costs under the mechanisms developed in this report, ICANN may need to modify the rules governing:

i. application withdrawals; and

ii. applicant communications and agreements before an ALR.

The purpose of changes to these rules is to disincentivize agreements and monetary transfers outside of the ICANN process.

In the previous application round, withdrawal and applicant communication rules existed but were ineffective in deterring private resolution:

- Applicants could withdraw their applications at any moment before the applicant entered into a registry agreement, receiving a partial refund of their evaluation fee. This mechanism incentivized private resolution by allowing losers to withdraw their applications for a partial refund.

- The ALR included a blackout period in which communications and agreements regarding contention resolution were prohibited. This period covered only the time between the deposit deadline and when the full payment was received, so has little impact on scope for private resolution agreements.
In subsequent rounds, ICANN may consider:

a. Only allowing an applicant to formally withdraw its application as part of a private resolution agreement (i.e. one that involves a registered joint venture) under ICANN rules. This rule change will make it more challenging to implement agreements outside of ICANN’s rules, because the option of an applicant formally withdrawing as part of a private agreement is removed, and there is a risk that applicants could renge on a promise not to bid in the ALR. For avoidance of doubt, applicants would still have the option of bidding zero in the ALR.

b. Ending the practice of refunding application fees to parties that withdraw from the process. This will increase the cost of private resolution relative to proceeded to an ALR.

c. Strengthening communication regulations by requiring applicants to disclose private resolution attempts and extending the blackout period to restrict communication and coordination for some specified period before a scheduled ALR. These changes should encourage applicants in contention to follow ICANN’s preferred process.

2.5. Avoid increasing the cost of contention resolution

For applicants in contention, the cost of contention resolution is the value of the transfers made to third parties outside the coalition. In ALRs, the cost is the competitive price at auctions of last resort. In private auctions, the cost is the fees charged by private brokers or auctioneers.

As stated above, there are two ways to minimize the asymmetry between private resolution and the ALR: reducing the competitive prices at ALRs; or increasing the payments to use private resolution.

In principle, it is possible to decrease the asymmetry while maintaining either a high or low level of payments. For example, achieving a high level of payments could involve switching the ALR format to a revenue-maximizing format and charging a high fee to use private resolution. In contrast, realizing a low level of payments could involve switching the ALR to a low-revenue format and charging a low fee to use private resolution.

The recommendations A and B in this report avoid unnecessarily increasing the cost of contention resolution with respect to the previous application round by considering the format of the ALRs as fixed and introducing changes for the cost of private resolution to match the cost of the ALR. Recommendation C will increase the cost of contention resolution but only by the minimum amount required to achieve ICANN’s goals in full.
3. Mechanism A: Auctions

ICANN can use auctions as the exclusive mechanism to resolve contention. Applicants would be allowed to apply as joint ventures, but communication and coordination regarding contention resolution would be prohibited after the application period.

Implementing this mechanism would imply a ban on private resolution, including joint ventures, and would require a reconsideration with respect to recommendation 20.6 in the SubPro final report. However, the exclusive use of auctions to resolve contention would:

- Reduce or eliminate speculation, the use of monetary transfers to resolve contention, and fund rolling,
- Bring ICANN to the mainstream practice among governments and companies resolving contention,
- Implement a well-understood, efficient, transparent, fair, and simple mechanisms to resolve contention, and
- Increase the proceeds from ICANN’s auction of last resort.

As explained in previous sections, most of the undesirable effects of private resolution arise from the asymmetry of the cost of resolving contention between private resolution and the ALRs. If private resolution continues, ICANN must balance the net benefits and costs of both options. However, the negative effects of private resolution would cease to exist if private resolution is disallowed.

Some bidders may have an incentive to resolve contention privately even if disallowed – for example, by pre-arranging bids and side payments. However, these types of arrangements are difficult to sustain in one-shot processes such as ICANN’s application rounds. In addition, ICANN can further minimize this behavior by establishing penalties for collusion and, potentially, pursuing legal action.

Governments use auctions without private resolution procedures to sell financial securities, and many rights such as timber, oil, gas, minerals, and electromagnetic spectrum. Similarly, companies do not allow suppliers or buyers to coordinate when selling or buying goods and services. In general, it is extremely rare for a party organizing an allocation process to allow participants in contention to decide major allocation and pricing decisions among themselves.

One notable historical exception was the allocation of radio spectrum licenses. The US Federal Communications Commission (FCC) used multiple allocative mechanisms until it settled on using auctions in 1994. The FCC used a first-come-first-served rule (1910’s – 1930’s), comparative hearings in the public interest (1930’s to the mid 1980’s), lotteries (mid 1980’s – mid 1990’s), and auctions (mid 1990’s to the present day).

The evolution of the FCC’s allocation mechanisms followed a series of challenges not dissimilar to those faced by ICANN. In the early days, the FCC’s main concern was to promote entry and investment. Once the industry was established and conflict between uses and users grew, the FCC allocated spectrum based on its judgment of its social impact – until the introduction of cellular
telephony. Faced with the challenge of appropriately evaluating hundreds of applications in a rapidly evolving industry, the FCC implemented lotteries. Lotteries are equivalent to private auctions in which the proceeds go to a single loser (the lottery winner). Lotteries, like private auctions could, increased the number of speculators, increased the number of monetary transfers between applicants, and kept the proceeds to the general public to a minimum. Faced with the challenges introduced by lotteries, the FCC started running auctions as their primary method to resolve contention between applicants.

The use of auctions in spectrum management is now considered a best practice around the world. Mostly because auctions have been proven to be efficient, fair, transparent, and simple mechanisms to resolve contention between applicants wishing to operate on the same spectrum.

ICANN could apply the lessons learned from spectrum management. Spectrum and gTLDs are not produced, do not depreciate, and the entirety of their value is derived from their use. Both display an extreme distribution of values across users, uses, and times. Both require complementary investments to be useful to society, and given the opportunity, many companies and individuals would happily own the right to use them to provide services or to resell them for a profit.

4. **Mechanism B: Formal process to support JV formation**

ICANN can effectively ban monetary means of resolving private resolution by narrowing the scope of private resolution to joint ventures within a well-established process. The process involves modifying the existing rules to provide applicants with three opportunities to form joint ventures before participating in the ALR. The rules would explicitly ban all other forms of private resolution. This mechanism also assists applicants in finding suitable parties with whom to form joint ventures, increasing the probability that good-faith joint ventures are formed and forced ones are avoided.

The three stages of the process are as follows:

- **Stage 1: Application stage**
  - Applications by joint ventures are explicitly allowed, and ICANN will review their eligibility alongside applications from sole applicants after the second stage. Joint ventures formed at this stage are (almost) guaranteed to be in good faith because the applicants voluntarily entered into a joint venture with parties they knew, considering the probability of contention.

- **Stage 2: Post-application, pre-review stage**
  - ICANN could publish contention sets before applicants have been thoroughly reviewed, with the understanding that some applicants may not be favorably reviewed. There would then be a reasonable period of time before the review stage to allow applicants to communicate with each other and, if mutually beneficial, to re-submit an application as a joint venture. Before the application stage, applicants face a search problem. They may not be aware of potential partner applicants in a good-faith joint venture. The publication of initial contention sets may assist applicants in forming joint ventures with suitable parties. Applicants are forbidden from discussing any other form of private
resolution, including any monetary means of compensation. Unmodified applications from the application stage and applications from newly formed joint ventures at this stage would then be reviewed, and accepted or rejected.

- **Stage 3: Pre-ALR stage**
  - ICANN provides applicants with a third opportunity to form joint ventures after all applications have been reviewed but prior to participating in the ALR. Prior to an applicant passing the review stage, their seriousness and eligibility may be in question. This may prevent mutually beneficial joint ventures from being formed if more information about each party had been available. Applications from joint ventures formed at this stage may require a secondary review by ICANN.

Under this mechanism, all forms of private resolution, other than the formation of joint ventures, are prohibited. Joint ventures need to satisfy minimum criteria to be considered good-faith and have the possibility to make monetary side payments.

The minimum criteria may involve at least two partners in contention, each with a minimum share. Most joint ventures will likely involve the definition of shares in the joint venture that will participate in the ALR and operate the gTLD. This will likely reduce the use of monetary means of compensation. However, it would be necessary to allow side payments to promote good faith joint ventures. For example, two partners may prefer compensating an applicant for withdrawing its application rather than including it in the joint venture.

The quality and the motives to create joint ventures may differ between stages. In the first stage, joint ventures would more likely be formed in good faith because the applicants entered into the joint venture for operational benefits rather than for the sole purpose of resolving contention. In the second stage, operational and resolution motives may contribute to the formation of joint ventures. However, it is essential to note that applicants can negotiate with their preferred partners and compete against other joint ventures in the ALR. In the third stage, the resolution motive may be more prevalent. Some joint ventures will be formed with the primary purpose of resolving contention. However, this stage is essential to ensure that applicants do not have strong incentives to use monetary means of private resolution outside of the ICANN process.

Enforcement of this mechanism will rely on the procedures and incentives. On the procedural side, ICANN will control the timelines and succession of events leading to the ALR, and it will have no opportunity to engage in private resolution methods other than the formation of joint ventures under ICANN rules. On the incentives front, the process is designed to allow applicants in contention to arrive at their preferred agreements within the ICANN process, obviating the need to engage in ‘outside’ negotiations.

The mechanism will not predictably increase the aggregate cost of resolution for applicants. While formally speaking, all contentions will be resolved using ALRs, the formation of joint ventures will reduce the number of contention sets that terminate at auction and will likely reduce the prices observed at auction by virtue of reducing the number of competitive bidders.
5. **Mechanism C: Imposition of fees for private resolutions**

The most direct mechanism to disincentivize private resolution is to impose a private resolution fee payable by coalitions that prefer private resolution. The most direct mechanism to allow good-faith joint ventures is explicitly establishing joint ventures as the only form of allowable private resolution. This mechanism combines these two measures.

The application and resolution process would be modified in two places:

- ICANN will require a private resolution fee to accept the outcome of a private resolution; and
- Private resolution will require the formation of a post-application joint venture between at least two applicants in contention with some minimum shares.

The second modification can be kept as proposed or can be modified to allow other types of private resolution without monetary transfers, such as barter or lotteries, or even some methods that use monetary transfers.

Applicants in contention will be free to negotiate a private resolution agreement as they see fit. If they raise the private resolution fee, they can notify ICANN of the outcome and pay it simultaneously. If they do not raise the fee, the resolution will continue to the ALR. If private auctions were allowed, the coalition could run the auction, pay the fee to the auctioneer, subtract the resolution fee, and then distribute the remaining part to the losers. In a joint venture, members could contribute in proportion to their shares to pay the fee.

The mechanism directly disincentivizes monetary means of private resolution by reducing the difference in transfer transfers to ICANN between private resolution and the ALR. Coalitions in contention evaluating whether to use private resolution or the ALR will compare transferring a competitive price to ICANN against transferring a private resolution fee to ICANN.

Introducing the private resolution fee will also increase the fairness of the resolution process. All coalitions of applicants in contention will contribute to the auction fund regardless of the resolution method chosen by the coalition.

A further advantage of the fee is that it allows ICANN some control over the split between private resolution and ALRs. A relatively low fee will maintain a high proportion of private resolution, while a relatively high fee will significantly reduce the scope of private resolution.

The main challenge in adopting this approach is determining how to set the fee. This would require further work. As guidance, we propose that ICANN use data analysis to set the initial fee and refine it in subsequent rounds of applications. For the initial analysis, ICANN could set the fee as a proportion of the prices observed in ALRs and private auctions for the last round of applications to, for example, targeting the median or a 75% percentile.

Monetary means of private resolution will be significantly diminished in two ways: more gTLDs in contention will be resolved using ALRs, and those using private resolution will have fewer incentives to
distribute high amounts. Specifically, those coalitions opting for private resolution will use monetary payments only to the extent necessary to avoid forced joint ventures.

Implementation and enforcement will be relatively straightforward, as ICANN can use ALRs as the default resolution method for all contention sets except those that have paid the private resolution fee.

The aggregate cost of contention resolution may increase or decrease with respect to the rules used in the previous application round, depending on the value of the fee and the auction format used in the ALR. On the one hand, the cost for applicants using private resolution will increase by virtue of contributing the fee to the auction fund. On the other hand, the increase could be offset by using a variation of the ALR designed to resolve contention at low prices – for example, by allowing the formation of joint ventures post-application but before the ALR.
## Available Mechanisms

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Short description</th>
<th>Disincentivizes monetary means of private resolution</th>
<th>Allows good faith joint ventures</th>
<th>Compensation of losers</th>
<th>Simplicity</th>
<th>Enforcement</th>
<th>Proceeds from contention resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Private resolution ban</td>
<td>Ban all types of post-application private resolution but allow pre-application joint ventures</td>
<td>→→→</td>
<td>★★</td>
<td>$</td>
<td>✓</td>
<td>✓</td>
<td>$$$</td>
</tr>
<tr>
<td>2. Private auction ban</td>
<td>Explicitly ban private auctions</td>
<td>←/→</td>
<td>★★</td>
<td>$</td>
<td>x</td>
<td>xx</td>
<td>$</td>
</tr>
<tr>
<td>3. Side payments ban</td>
<td>Explicitly ban side payments</td>
<td>→</td>
<td>★</td>
<td>$</td>
<td>✓</td>
<td>xxx</td>
<td>$</td>
</tr>
<tr>
<td>4. Monetary side payments ban</td>
<td>Explicitly ban monetary side payments</td>
<td></td>
<td></td>
<td>$</td>
<td>✓</td>
<td>xx</td>
<td>$</td>
</tr>
<tr>
<td>5. Joint ventures only</td>
<td>Explicitly allow joint ventures as the only means of private resolution</td>
<td>←</td>
<td>★★</td>
<td>$</td>
<td>✓</td>
<td>xxx</td>
<td>$</td>
</tr>
<tr>
<td>6. Private resolution reserve prices</td>
<td>Set a reserve price to use private resolution</td>
<td>←←←</td>
<td>★★</td>
<td>$</td>
<td>x</td>
<td>✓</td>
<td>$$$</td>
</tr>
<tr>
<td>7. Revenue shares</td>
<td>Set a revenue share to use private resolution</td>
<td>←←←</td>
<td>★★</td>
<td>$</td>
<td>x</td>
<td>xx</td>
<td>$$$</td>
</tr>
<tr>
<td>8. Joint venture of last resort</td>
<td>Create an auction to allocate shares in a joint venture</td>
<td>→←←</td>
<td>★★</td>
<td>$</td>
<td>x</td>
<td>✓</td>
<td>Simulation required</td>
</tr>
<tr>
<td>9. Joint bidders</td>
<td>Ban private resolution but allow applicants to create joint ventures before participating in the ALR</td>
<td>→←←</td>
<td>★★★</td>
<td>$</td>
<td>✓</td>
<td>✓</td>
<td>Simulation required</td>
</tr>
<tr>
<td>10. Contention trading</td>
<td>Facilitate gTLD trading as means of private resolution</td>
<td>→←←</td>
<td>★</td>
<td>$$$</td>
<td>xx</td>
<td>✓</td>
<td>Simulation required</td>
</tr>
</tbody>
</table>

- → Over-corrects (severity determined by # of arrows). Hinders scope for private resolution too broadly.
- ← Under-corrects. Scope for monetary resolution still high.
- ★ Just right. Monetary private resolution limited without impacting scope for other means of private resolution.
- # of ★ indicates the quality of the joint ventures formable (eg, banning side payments makes it more difficult to exclude bad JV's).
- # of $ symbols shows degree to which losers may be compensated.
- Implementing mechanisms straightforward.
- Can be easily enforced (eg, ICANN cannot observe applicant bank accounts).
- # of $ symbols shows degree ICANN extracts value from the coalition of applicants.

Annex 1: Comparison of mechanisms considered
QUALIFICATIONS, ASSUMPTIONS, AND LIMITING CONDITIONS

This report is for the exclusive use of the NERA client named herein. This report is not intended for general circulation or publication, nor is it to be reproduced, quoted, or distributed for any purpose without the prior written permission of NERA. There are no third-party beneficiaries with respect to this report, and NERA does not accept any liability to any third party.

Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been independently verified, unless otherwise expressly indicated. Public information and industry and statistical data are from sources we deem to be reliable; however, we make no representation as to the accuracy or completeness of such information. The findings contained in this report may contain predictions based on current data and historical trends. Any such predictions are subject to inherent risks and uncertainties. NERA accepts no responsibility for actual results or future events.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events, or conditions, which occur subsequent to the date hereof.

All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client. This report does not represent investment advice nor does it provide an opinion regarding the fairness of any transaction to any and all parties. In addition, this report does not represent legal, medical, accounting, safety, or other specialized advice. For any such advice, NERA recommends seeking and obtaining advice from a qualified professional.