

## Secretariat for Strengthening Democracy of the OAS General Secretariat Reiterates the Findings of the Electoral Integrity Analysis of 2019 in Bolivia

The Secretariat for Strengthening Democracy of the OAS General Secretariat (GS/OAS) has taken note of a study commissioned by the Office of the Attorney General of Bolivia that, according to the introduction thereto, analyzes the “integrity of the I.T. systems and of the information generated during the General Elections held in the Plurinational State of Bolivia by verifying the security of the infrastructure and records in place during the electoral process.”<sup>1</sup> After analyzing said study, the General Secretariat is obliged to point out the most obvious errors it contains, reiterate the findings of the Electoral Integrity Analysis conducted by the Organization of American States in 2019, and conclude that it is not, and never will be possible to guarantee the integrity of the data and definitively confirm the outcome of that election.

The expert study, financed by Bolivia’s Office of the Attorney General, refers solely and exclusively to I.T. issues based on unknown information provided by that government institution, and does not address matters that are critical to fully understand what happened in 2019. Moreover, the study was conducted virtually, long after the election, by a team hired by the same Office and bereft of experience in electoral matters.

Despite the expert report’s serious shortcomings, the GS/OAS notes that its principal merit is that it confirms some of the serious I.T. defects found in the Electoral Integrity Analysis conducted by the GS/OAS at the behest of the Government of Bolivia in 2019. For instance, it confirms the use of two servers that were not part of the technological infrastructure arrangements established for the Transmission of Preliminary Electoral Results (TREP). It also confirms that the environment failed to preclude manipulation of data, the theft or substitution of tally sheets, or any other maneuvers by users with “root”<sup>2</sup> privileges in the TREP and vote count systems; the lack of records to ascertain user interference with databases; that data traffic was re-directed to an external network outside the domain, administration, control, and monitoring of the Supreme Electoral Tribunal (TSE); that evidence was destroyed; and that there were other factors that compromised the integrity of the systems used in Bolivia’s elections in 2019.

In addition to sharing these serious findings and pointing out that the electoral process was marred by “inexcusable errors,” the person charged with conducting the study, Juan Manuel Corchado, declared: “We conducted an a posteriori study, years after the (2019) elections, focused on the data that the Office of the Attorney General in Bolivia transmitted to us (...), and centered on an examination of those data and what happened to them. The (OAS) report goes much further and addressed the whole electoral process; we did not go into all of that, for lack of data.”<sup>3</sup> “We just restricted ourselves to analyzing the databases.”<sup>4</sup>

Another major difference between the study conducted by the OAS technical team and the one carried out by academics hired by the Attorney General’s Office has to do with the range of information analyzed

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1. Electoral Integrity Analysis. General Elections in the Plurinational State of Bolivia. October 20, 2019. Corchado, Juan Manuel; Plaza, Pablo, and López, Manuel. Universidad de Salamanca. (July 2021). Page 10.
  2. A root user is one with all the privileges and permits required to intervene in an operating system.
  3. <https://www.facebook.com/BoliviavtVOficial/videos/583979029433597>
  4. <https://www.lostiempos.com/actualidad/pais/20210801/corchado-ratifica-que-estudio-no-se-centro-verificar-si-hubo-no-fraude>

and the sources used. As established in the signed agreements, the OAS technical team worked independently and was able to compile information and interview a series of stakeholders (officials at the TSE and Departmental Electoral Tribunals, as well as representatives of Ethical Hacking and Neotec). We regret that the academics who drew up this latest report – despite having analyzed and ratified core findings of the OAS – did not meet with the Organization’s team or with other actors who could have shared valuable information and helped prepare a genuinely objective and thorough study.

Without technical evidence to support it, and based solely on comparison of a few fields in the databases, the partial report submitted by the academics asserts: “It has been demonstrated that this inappropriate management of I.T. systems did not imply manipulation of the data.”<sup>5</sup> What is striking here is that they reach that conclusion without having managed to identify the photographs of the TREP tally sheets (*actas*) that were also used in the vote count, failing to acknowledge the alterations they exhibit, ignoring the lack of records of the changes or of who made them, and disregarding the fact that it was possible to destroy evidence, as in fact happened.

As mentioned above, despite its shortcomings, the report does acknowledge that, by manipulating the network, two unregistered and unauthorized servers were used, without the oversight of either the National Directorate of Information and Communication Technologies of the TSE or the audit firm hired by the TSE. It also notes that the team operating next to Neotec controlled the flow of data at will and was in a position not to leave traces of alterations, and it asserts that “the administrators of the BO20 server did not take the necessary steps to preserve records, thereby allowing the destruction of the evidence required to analyze the behavior of the server.”<sup>6</sup> In light of these affirmations, it is worth mentioning that evidence does not destroy itself nor does this occur due to a simple mistake. Underlying it is an intention to hide incriminating acts.

It is important to recall that the true functions of the first clandestine server and the existence of the second were discovered by OAS technical staff during field work, as they had not been included in the documentation of the I.T. arrangements provided by the electoral authorities. In other words, that information was hidden and only admitted after the servers had been discovered by the OAS experts. It cannot therefore be concluded, as the report commissioned by the Attorney General Office insinuates, that the failure to report those servers was involuntary or due to negligence. Their incorporation constituted deliberate manipulation of the technological infrastructure and is part of the web of lies designed to deceive the OAS team and the entire Bolivian population.

Worth underscoring, too, is the fact that Neotec exercised full control over the TREP infrastructure, with ample power over databases, apps, and the operating system. That enabled it to manipulate every aspect of the system applied without leaving traces. It also enjoyed maximum privileges for controlling vote count networks, systems, and databases. The company was also in a position to tamper with evidence a posteriori, as it was responsible for safeguarding it, without a chain of custody, even though it was an interested party in the judicial investigation.

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5. Electoral integrity analysis. General Elections in the Plurinational State of Bolivia. October 20, 2019. Corchado, Juan Manuel; Plaza, Pablo, and López, Manuel. Universidad de Salamanca. (July 2021). Page 15.
  6. Electoral integrity analysis. General Elections in the Plurinational State of Bolivia. October 20, 2019. Corchado, Juan Manuel; Plaza, Pablo, and López, Manuel. Universidad de Salamanca. (July 2021). Page 137.

The report commissioned by the Attorney General's Office points to the extreme vulnerabilities of the system and the manipulations that took place, stating that data could be added, altered, or eliminated without trace. In a series of assertions throughout the document, the academics contradict their own conclusion regarding the integrity of the outcomes:

1. In Annex II, they acknowledge "the manual altering of the databases" of TREP and Vote Count servers at 5:02 p.m. on October 21, 2019. It is revealed in the same experts' report that no user activity record remained. In other words, the study confirmed that it was possible to manually tamper with the data and leave no trace. Further on in the document, they compared the TREP and Vote Count databases, noted that there were no significant differences and as a result concluded that there had been no manipulation of data. This comparison, used to substantiate their opinion, is flawed, since it does not allow for the detection of manual alterations such as the one they themselves recognize in Annex II. Knowing that such manual alterations existed, they used a method for their analysis that does not detect them, leading to an erroneous conclusion. The only way this method could detect such alterations would be if the person manually altering the data forgets to update a table or makes a mistake.
2. In Section 2.6 "Conclusions," they state: "Although the team of experts verified the integrity of the contents of the databases, there were unidentified users capable of accessing the election's I.T. system with administrative rights, who were in a position to add, alter, and/or eliminate data, and to delete records of the evidence."
3. In the Conclusion regarding Incident FB-018, on page 137 of the document, the authors state that: "the deletion of evidence [...] entails a high level of risk as it makes it possible to hide the server's performance from the team of experts and thereby hide possible malicious acts."
4. In Annex III, they maintain "that the TREP and official vote count systems were independent. The only information shared between them were the tally sheets coming from abroad." This assertion is not only wrong; it reveals the deficient nature of the database analysis, because it was not even able to identify the images of tally sheets unsupported on paper that, although not coming from abroad, were included in the vote count. It could not therefore identify their origin, integrity, and authenticity. Taking this into account, in addition to the arguments previously expressed, it is not possible for the authors to conclude that the databases were not manipulated.

In short, the report acknowledges that it had a limited scope, that it was possible to manually alter the systems and databases, that unidentified persons were in a position to make changes without leaving any trace, that there was no supervision, and that it is not possible to guarantee the integrity and authenticity of the evidence. Despite this and based merely on a simple comparison of the databases, it asserts that there was no manipulation. That conclusion has no technical or scientific merit and compromises the professionalism of the expert opinion.

It should be noted that the report authored by Corchado, Plaza and López also contains some noteworthy and significant omissions. While it describes the tools and analytic activities employed, it fails to address

the “attack surface” concept and fails to document the exposure to the Internet through a private domain (neotec.cc). The academics hired by the Office of the Attorney General make no mention of the lack of traceability of the images of the TREP tally sheets, which should have been substantiated using the tally sheet metadata. Nor do they mention that the report by the audit firm Ethical Hacking confirmed that the administrators operated from a remote location without being supervised by either themselves or the DNTIC.

Furthermore, the report commissioned by the Attorney General’s Office made no reference to the “anti-forensic” techniques that were freely deployed in the TSE infrastructure and which facilitate manipulation, overwriting, or the elimination of potential evidence, specifically in order to avoid detection by forensic experts. This should not be ignored, as it makes it difficult to authenticate the facts mentioned in the report or to guarantee the integrity and authenticity of the data.

Nor does the document specifically address the real risks of altering software that was not formally safeguarded prior to the process (it had no hash) and was modified right in the middle of the electoral process (for TREP and vote count). Consequently, both the impact analysis conducted, and its assessment were deficient in this regard.

Also, the study does not take best practices into account when analyzing the various incidents that occurred, especially the stoppage of the TREP. Proof of this lies in the fact that no mention is made of the “root cause” concept. The study does not duly analyze the life cycle of electoral information, processing times, or the gaps/intervals that make it easier to deploy manipulation techniques (exacerbated by the stoppage of the TREP). This leads the study to conclude – wrongly – that simultaneous actions in both I.T. systems are needed in order to manipulate results.

Another major defect of the report is that its conclusions are based on information that excluded records of access to the vote count database during the electoral process. In section 3.2.3 on the integrity of the vote count database, the report recognizes that “[t]he dates of this evidence run from October 27, 2019 to November 3, 2019, so that electoral process records are missing.” Based on the information that the report itself provides, it is clear that they did not analyze the records of the electoral process, but rather later information. With that, they seek to conclude that there was no access during the process (though this access is recognized in Annex II) and to justify the integrity of the database.

It should also be borne in mind that the potential digital evidence available to the academics was not kept in accordance with ISI/IEC 27037, nor was a chain of custody established for it. Moreover, it was in the possession of parties with a vested interest in the outcome of the investigation, who, as the expert report confirms, were in a position to modify, overwrite, or destroy information without leaving traces. It is therefore not possible to guarantee the authenticity of the digital evidence that was presented and used for the expert analysis.

In addition to the multiple irregularities we have mentioned, others were detected during the Electoral Integrity Analysis conducted by the OAS. The OAS technical team also identified the existence of a pattern of manipulations, falsifications, and adulterations in the filling-in of electoral tally sheets, using very similar mechanisms in six different departments, and all favoring a single candidate. That is to say, the same conduct repeated in different departments with a view to favoring one and the same candidate. Of the 4,692 digital tally sheets audited (corresponding to 13.5% of the polling stations [*mesas de votación*]), 226 cases were found where two or more tally sheets from the same polling station were filled in by the same person.

That is another reason why the review of the system databases conducted at the behest of the Attorney General's Office is worthless. It is worth recalling that the OAS performed a similar exercise during the 2019 audit but ruled out using it to validate results once it ascertained the existence of irregular or manipulated tally sheets and as it was not possible to prove the authenticity of the documents fed into the system.

The analysis conducted by the OAS technical team further revealed that the chain of custody of the tally sheets was extremely fragile and that they were transferred in very different ways without the requisite security measures. It also noted that established protocols were not followed. That became evident when an unknown number of tally sheets were burned along with more than 13,100 lists of eligible voters ("voter lists").

Despite the importance of those lists (which are classified as sensitive material), they were lost completely in four departments. In other words, 13,176 tally sheets cannot be checked against voter lists because they were burned. As no vote recount is possible, it is impossible to be certain how many votes were issued in those (more than 13,000) polling stations (*mesas*). In addition, it is important to mention that, in many cases in which the material had not been burned, the OAS team reported that voter lists could not be found either, allegedly having been mixed up and misplaced with non-sensitive material.

These irregularities, according to the report of the comprehensive analysis of the electoral process, were carried out with willful manipulation of the electoral result, preventing the audit team from validating the result of the election. As it literally says, "they are willful actions that were intended to affect the course of the electoral process," and it is good to review them again:

- Weakening of the electoral authority.
- Willful stoppage of the Preliminary Results Transmission System (TREP) -
- Clandestine servers-
- Manipulation of hidden server- - Use of technological scheme with parallel for improper purposes- -
- Improper remote access to the system-
- Access of unauthorized persons to the system-
- Provision of false information and deliberate attempt to hide servers-
- False information regarding servers used-
- Willful and irregular filling of tally sheets-
- Burning of electoral materials-
- The metadata of the TREP images was not preserved
- The hash value was not recorded in the software freezing act and later modifications were made to it in the middle of the electoral process.
- The transfer of images from the primary server BO2 of the TREP to the application server and publisher that fed the Official Count was verified. Irregularities in handling of foreign acts-
- Residuals from Databases and NEOTEC application were found in perimeter servers,
- Unexplained and unauthorized entries to the system-
- The person in charge of the NEOTEC company modified the Official Computation software in the middle of the process on more than one occasion.
- At least 1,575 records of the TREP (environment whose network was violated and manipulated) entered directly into the Official Count.
- It was accessed during the Official Computing process directly to modify data in the Database by means of SQL queries (which allow data to be changed without using the application), to solve faults in a

calculation algorithm. Only in this access, which was carried out 20 minutes after a direct access to the databases for the purpose of "un-canceling minutes", the data of 41 tables were modified directly on the database.

-There was no adequate preservation of the evidence on the election.

-The poor chain of custody did not guarantee that the electoral material has not been tampered with and/or replaced.

-Original voting records abroad (unfilled) were found at the TSE facilities.

-The authentication for the use of the computer system software was weak and allowed someone to take control with administration roles. It was found that with the same code several sessions could be opened, that a new browser tab could be opened before closing the previous one and that when the person who was working left, despite having closed the application, they could access with their user without authenticating (including roles that allowed the validation of minutes).

None of these irregularities are acceptable, none of the human actions and intentions behind these irregularities are acceptable. No democracy would accept an electoral process like this.

In light of all of the above, it will never be possible to have confidence in this election, because of the manipulation, large number of irregularities, and the destruction of I.T. and material evidence. This and other commissioned studies demonstrate the failure of those who continue to try to validate what cannot be validated. Of the elections observed by the OAS in the last decade, the October 2019 election in Bolivia is probably the worst of all. It is a hemispheric disgrace given the accumulation of irregularities and the flagrant manipulation of the electoral process. Efforts to validate this collection of irregularities and manipulations through extemporaneous studies, constitute a serious affront to democracy in the hemisphere.

## **Relevant legal considerations**

### **a. The OAS report is binding**

As indicated in numeral 6 of the Agreement between the General Secretariat of the OAS and the Plurinational State of Bolivia regarding the Analysis of Electoral Integrity of the General Elections of October 20, 2019, the result of the report is binding on both parties. Therefore, the constant attempts to search for alternative reports, which only make increasingly evident the seriousness, professionalism and certainty of the reports presented by the OAS, is regrettable. For these technical and legal reasons, the Bolivian State is urged to honor the signed agreement. The constant violations of the agreement only highlight the lack of adherence to the acquired commitments of the Inter-American System.

It has been demonstrated time and again that, no matter how many reports are commissioned, the report of the OAS Electoral Integrity Analysis of the General Elections of October 20, 2019 is, and will continue to be, the benchmark for having been the only one carried out in time and form, *in loco* and with the necessary technical expertise to review the different elements of the electoral process and access the evidence. There is no more exhaustive analysis of the 2019 General Elections in Bolivia than that conducted by the different areas of the OAS. The information published by the Organization is the product of the observations of the Mission deployed for the elections, and of the findings and conclusions of the Electoral Integrity Analysis conducted in the days following the elections. Both exercises were carried out by experts, at the request of the Bolivian institutions, and within the framework of agreements signed with different government institutions.

## **b. Cancellation of the elections**

On the morning of Sunday, November 10, 2019, during a press conference, former President Evo Morales called for new elections. At that time, he said: “For that reason, having heard the members of the Bolivian Workers Confederation (Central Obrera Boliviana), the Unity Pact, and other social sectors, I have decided: First, to renew all the judges of the Supreme Electoral Court (TSE). In the coming hours, the Plurinational Legislative Assembly, in agreement with all political forces, will establish the procedures for that. Second: to convene new national elections so that, through their vote, the Bolivian people can democratically elect their new authorities, including new political actors in the process”<sup>7</sup>.

On November 24 of that year, the National Assembly passed the Law on Exceptional and Transitory Rules Governing the Holding of General Elections<sup>8</sup>, through which it correctly annulled the process conducted on October 20, 2019 and dismissed all the members of the Plenary of the TSE. After the appointment of a new electoral authority, on January 5, 2020, new elections were called. The OAS worked with the TSE to strengthen the capacities of the new electoral institution. In 2020, the MAS party won the presidential election as recognized by international observers and the competitors in the elections. Today Bolivia has a president and local authorities that were democratically elected.

The 21 Electoral Observation Missions that the OAS has deployed in Bolivia since 1966, as well as all those that it deploys in the region, have always acted in accordance with the principles of objectivity, neutrality, professionalism, and impartiality. They did so during the 2016 referendum, in the 2019 elections, in the 2020 elections, as well as in the most recent ones in 2021. This makes it clear that the objectives of the OAS are strictly technical and adhere to principles and best practices in electoral matters.

## **c. Institutional continuity**

In his statement of November 10, 2019, the Secretary General of the OAS called on government and political actors and institutions to “act peacefully, with responsibility and respect and in accordance with the Constitution”<sup>9</sup> and stated that “constitutional mandates must not be interrupted, including that of President Evo Morales”<sup>10</sup>. The OAS was the first international organization to speak out in this regard, in defense of the Constitution, the regulations that arise from it, as well as the mandates of the Executive and the Legislative Branches. Anyone who says otherwise is telling flagrant untruths and is seeking to promote a false narrative that does not coincide with the facts or the documentation in this regard.

In reality, the vision of the international community goes even further, for example, on November 14, the then High Representative of the European Union Federica Mogherini addressed the European Parliament in a special session on the Bolivian crisis: “according to the Constitution and given the absence and

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<sup>7</sup> Video available at: <https://www.cnn.com/videos/spanish/2019/11/10/evo-morales-anuncia-elecciones-generales.cnn>

<sup>8</sup> Law. No. 1266. Available at: [https://www.oep.org.bo/wp-content/uploads/2020/01/LEY\\_1266.pdf](https://www.oep.org.bo/wp-content/uploads/2020/01/LEY_1266.pdf)

<sup>9</sup> [OEA :: Comunicado del Secretario General sobre Informe Preliminar Auditores Proceso Electoral en Bolivia \(oas.org\)](https://www.oas.org/es/comunicado-del-secretario-general-sobre-informe-preliminar-auditores-proceso-electoral-en-bolivia)

<sup>10</sup> [OEA :: Comunicado del Secretario General sobre Informe Preliminar Auditores Proceso Electoral en Bolivia \(oas.org\)](https://www.oas.org/es/comunicado-del-secretario-general-sobre-informe-preliminar-auditores-proceso-electoral-en-bolivia)

resignation of the President and the First Vice President, the Second Vice President must be the next in the line of succession assuming the presidency on a provisional basis until the new elections ”.

#### d) Violence and impunity

Violence during the Bolivian electoral process and subsequent stages was repeatedly denounced by the OAS and the inter-American system as a whole. A resolution of the Permanent Council on the matter was even approved. The violence started long before the reports were presented, not as some have lied about it. Unfortunately, each political actor in power has sought amnesty for those who would have committed violence in their name. This is completely unacceptable. Violence, human rights violations and crimes against humanity committed, be it murder, political imprisonment or political persecution must be brought to justice. Given that the logic of amnesty, political persecution and lack of guarantees continue, it is understood that the International Criminal Court is the competent court to carry out these trials.

In 2020, Bolivia once again held elections as established by the Inter-American Democratic Charter: “periodic, free, and fair elections based on secret balloting and universal suffrage as an expression of the sovereignty of the people, the pluralistic system of political parties and organizations, and the separation of powers and independence of the branches of government”. This has been achieved, in part, thanks to the thorough and professional work of the teams deployed by the OAS General Secretariat. Attempts to rewrite Bolivia’s recent history will persist, but there is only one truth, and it is objectively spelled out in the electoral observation report and the Electoral Integrity Analysis report produced by the OAS. The OAS General Secretariat has always acted with transparency and sought to ensure the integrity of the electoral processes it observes and analyzes. When it has encountered manipulation, it has said so, and when it has not, it has defended the results.