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Digital Transformation in Online Public Service Delivery at Commune Level: The Current Situation in Hai Thinh Commune, Ninh Binh Province, Vietnam

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Abstract
Online public services are the most visible output of digital transformation in public administration, and in Vietnam they are now delivered mainly at commune level after the introduction of the two-tier local government model on 1 July 2025. This paper analyses the current situation of digital transformation in online public service delivery in Hai Thinh, a coastal commune of Ninh Binh province formed by merging Thinh Long township and the communes of Hai Chau and Hai Ninh. The study applies a descriptive case design that combines document analysis of national, provincial and commune sources with descriptive statistics. It maps the service delivery chain from the citizen's VNeID account through the National Public Service Portal and the provincial procedure-handling system to the commune Public Administrative Service Centre. At provincial level, the results show rapid progress: by the third quarter of 2026, 98.2% of full-process dossiers and 91.5% of partial-process dossiers were handled online, and online payment reached 92.1%. Yet digital integration remains incomplete. Only 47.3% of permanent residents had electronic health books integrated in VNeID and 13.1% had social-security accounts integrated, while payment reconciliation, inconsistent data, duplicate procedure codes and limited equipment continue to interrupt fully digital handling. For a coastal commune whose residents include fishing households, older people and Catholic parish communities, the demand side is as important as the supply side. The paper proposes a three-layer set of solutions covering the supply side, intermediaries and the demand side, aimed at turning high submission rates into services that residents can complete independently.

Keywords: Digital Transformation, Online Public Services, Commune Level, National Public Service Portal, VNeID, Vietnam

1. Introduction

Public services are where citizens experience the state most directly, and online public services have become the main indicator of digital government in many countries. The UN E-Government Survey 2024 placed Vietnam 71st of 193 countries, with an Online Service Index of 0.7081, lower than its telecommunications infrastructure score of 0.8780 (UN DESA, 2024) [25]. The gap suggests that Vietnam's challenge is no longer connectivity but the design, integration and use of services.

Vietnam set ambitious targets to close this gap. By the end of 2025 all eligible administrative procedures were to be provided as full-process online services, 80% of dossiers were to be processed online and 40% of the adult population was to use online public services (Prime Minister of Vietnam, 2021, 2022b) [19, 21]. Since late June 2025, online public services have been channelled through a single national entry point, the National Public Service Portal, and provincial portal interfaces were switched off on 1 July 2025. On the same day the country began operating a two-tier local government model, under which communes took over many procedures formerly handled by districts.

Ninh Binh, which absorbed the former provinces of Ha Nam and Nam Dinh in 2025, now handles about 85% of its administrative dossiers at commune level (Ninh Binh Provincial People's Committee, 2026a) [13]. The quality of online public services in the province therefore depends heavily on how communes operate.

This paper examines Hai Thinh commune. The commune was created under Resolution No. 1674/NQ-UBTVQH15 of 16 June 2025 by merging the whole area and population of Thinh Long township and the communes of Hai Chau and Hai Ninh of the former Hai Hau district, Nam Dinh province, and started operating on 1 July 2025. According to the Government's proposal for the 2025 arrangement of commune-level units in Ninh Binh, it covers 32.92 km² and has 33,521 residents (Government of

Vietnam, 2025) [7]; it lies on the coast at the mouth of the Ninh Co river. Its economy combines fisheries, seafood services and coastal tourism with agriculture. These features make Hai Thinh a useful case for studying online public services in a coastal commune where many residents work at sea, travel frequently and may have limited time or skills for digital transactions.

The paper asks three questions. What is the current situation of digital transformation in online public service delivery in Hai Thinh commune? What obstacles prevent online submission from becoming fully digital service? Which solutions are appropriate for a coastal commune of this kind?

2. Literature Review

2.1 Digital transformation and online public services

Digital transformation in the public sector goes further than digitising existing procedures. Mergel *et al*. (2019) [11] describe it as a holistic effort to redesign processes, services and relationships with citizens. Layne and Lee (2001) [9] showed that the transaction stage of e-government, where citizens can complete services online, must be followed by vertical and horizontal integration across government levels and agencies before services become seamless. In practice, many governments reach high transaction volumes before integration is complete, which creates hidden manual work in the back office (West, 2004) [27].

Online public services create public value when they improve service quality, administrative efficiency and openness (Twizeyimana and Andersson, 2019) [24]. These benefits depend on adoption. Carter and Bélanger (2005) [2] found that trust, perceived usefulness, ease of use and compatibility with citizens' daily lives determine whether people choose e-government services. The OECD (2014) [16] recommends that digital government strategies be "user-driven", built around the needs of citizens rather than the structure of agencies.

2.2 Digital divide and intermediaries

The digital divide has three levels: physical access, skills, and the outcomes people obtain from digital use (van Dijk, 2020) [26]. Older adults, people with lower education and people whose work keeps them away from offices or connectivity are most likely to be left behind. Lindgren *et al*. (2019) [10] note that digitalised public services change the encounter between citizens and officials, often shifting tasks to citizens, which can disadvantage those with fewer resources. Many countries therefore rely on intermediaries, such as assisted-digital counters, community helpers and post offices, to bridge the gap during transition.

2.3 Vietnam's institutional framework

Vietnam's framework for online public services includes the Law on Electronic Transactions No. 20/2023/QH15, Decree No. 45/2020/ND-CP on administrative procedures in the electronic environment and Decree No. 61/2018/ND-CP on the one-stop shop mechanism. Project 06 (Decision No. 06/QD-TTg of 6 January 2022) created the population database and the VNeID application, which now serves as the main login and identification channel for the National Public Service Portal. Resolution No. 57-NQ/TW of 22 December 2024 made digital transformation a national strategic breakthrough. Ninh Binh's 2026 digital transformation plan requires 100% of eligible procedures to be offered as full-process online services, at least 90% of dossiers to be processed online and at least 80% of administrative transactions to be contact-free (Ninh Binh Provincial People's Committee, 2026b) [14].

3. Research Methodology

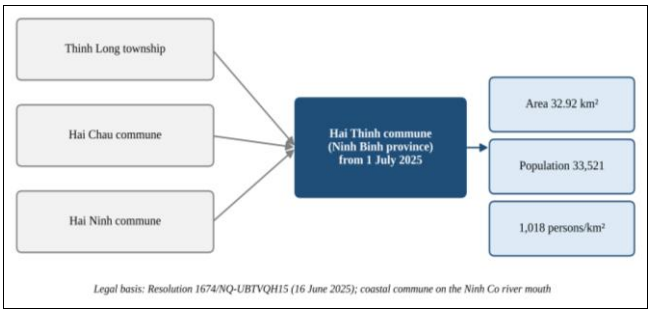
The study adopts a descriptive single-case design (Yin, 2018) [28] with Hai Thinh commune as the unit of analysis. Data come from document analysis (Bowen, 2009) [1] of (i) international and national statistics on e-government; (ii) legal and policy documents; (iii) reports and statistics of Ninh Binh province on administrative procedures, Project 06 and digital transformation in 2025-2026, including Report No. 337/BC-UBND of 2026; and (iv) information published by Hai Thinh commune and the provincial portal.

The analysis proceeds in three steps. First, the service delivery chain is mapped to identify where digital integration succeeds or breaks down. Second, provincial indicators are compared with targets to establish the context in which the commune operates. Third, commune information is analysed along supply-side, intermediary and demand-side dimensions. Descriptive statistics are calculated from official figures; no figures are estimated.

4. Results

4.1 Profile of Hai Thinh commune

Fig 1 shows the formation of Hai Thinh commune. Its administrative headquarters is located in the former Thinh Long township.



Source: Compiled by the authors from Resolution 1674/NQ-UBTVQH15 and provincial data

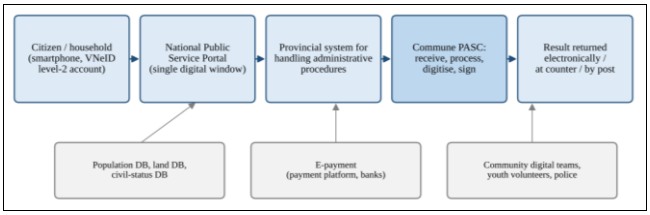
Fig 1: Formation and basic profile of Hai Thinh commune

Three features of the commune matter for online public services. First, it brings together a former township and two rural communes with different levels of digital readiness and separate legacy records. Second, fishing and seafood services around the Ninh Co fishing port are important livelihoods, and residents who work at sea are often absent during office hours. Third, the commune has Catholic parish communities. In Ninh Binh, the provincial police launched the "Bình dân học vụ số" (digital literacy for all) movement at a Catholic parish and asked commune police to work with religious leaders when organising it (Dai bieu Nhan dan, 2025a) [3], which suggests that parish networks can be a channel for digital outreach in communes such as Hai Thinh.

4.2 The online public service delivery chain

Fig 2 maps the chain through which a resident of Hai Thinh obtains an online public service. A resident with a level-2 VNeID account logs in to the National Public Service Portal, which routes the dossier to Ninh Binh's information

system for handling administrative procedures. The dossier is then received, processed, digitised and digitally signed at the commune PASC, and the result is returned electronically, at the counter or by post. Three support systems make the chain work: national and sectoral databases, the e-payment platform and banks, and community intermediaries such as community digital teams, youth volunteers and commune police.



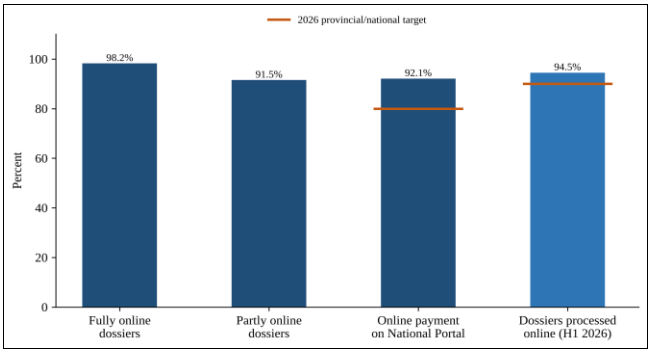
Source: Developed by the authors

Fig 2: Online public service delivery chain at commune level

The design has clear advantages. A single portal and a single digital identity reduce confusion for citizens, and data reuse means fewer paper copies. The design also creates dependency: the commune cannot solve failures in the portal, the provincial system, the databases or the payment platform by itself.

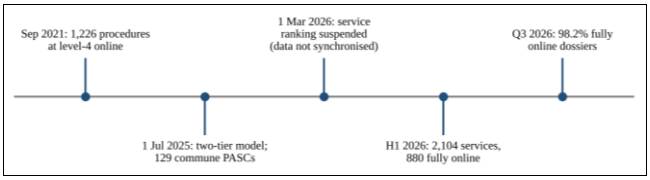
4.3 Provincial context: rapid progress in indicators

Ninh Binh's progress since 2021 has been fast (Fig 3 and Fig 4). In September 2021 the former Ninh Binh province provided 1,226 eligible procedures at level-4 online service (Phap luat Viet Nam, 2021) [17]. By the first half of 2026, after the merger and the move to the two-tier model, the enlarged province listed 2,104 online public services, 880 of them full-process, and processed 94.5% of dossiers online. In the third quarter of 2026, 98.2% of full-process dossiers and 91.5% of partial-process dossiers were handled online, and online payment on the National Portal reached 92.1% (Ninh Binh Provincial People's Committee, 2026a) [13].



Source: Compiled by the authors from provincial reports and press releases

Fig 3: Online public service indicators of Ninh Binh province, 2026, compared with targets



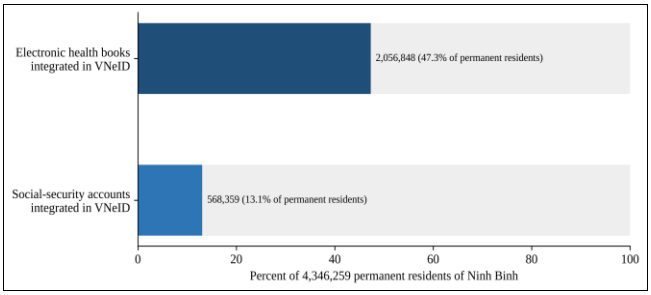
Source: Compiled by the authors

Fig 4: Milestones in online public service delivery in Ninh Binh province, 2021-2026

These figures place Ninh Binh above both the provincial target of 90% of dossiers processed online and the national 2025 target of 80%. They also show that online payment, once a weak point nationally, has improved substantially.

4.4 Digital identity and data integration

VNeID is the key to linking residents with online services. Data from Ninh Binh's 2026 Project 06 implementation (Ninh Binh Provincial People's Committee, 2026c) [15] show that 2,056,848 electronic health books had been integrated in VNeID, equal to 47.3% of 4,346,259 permanent residents, and 568,359 social-security accounts had been integrated, about 13.1% of permanent residents (Fig 5). The province itself acknowledges that integration of documents into VNeID remains low and has asked communes to campaign through loudspeakers, community meetings and direct guidance.



Source: Calculated by the authors from Ninh Binh Provincial People's Committee, 2026c [15]

Fig 5: Integration of electronic health books and social-security accounts in VNeID, Ninh Binh province, 2026

The contrast with Fig 3 is striking. Almost all dossiers are now handled online, yet most residents have not integrated their key documents into their digital identity. This suggests that high online rates are being achieved largely through submission at or with the help of the PASC, rather than through residents' independent use of online services.

4.5 Online public service delivery in Hai Thinh commune

Commune-level statistics are entered monthly into the provincial system but are not yet published, so a commune-specific series for Hai Thinh could not be compiled from public sources. Table 1 therefore summarises the provincial indicators that frame the operating environment of the Hai Thinh PASC; they should not be read as measured values for the commune itself.

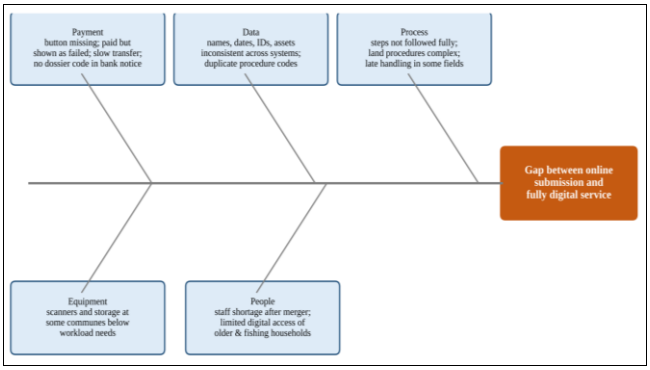
Table 1: Provincial online public service indicators framing service delivery in Hai Thinh commune

Indicator	Ninh Binh province (2026)
Share of provincial dossiers handled at commune level	about 85%
Share of dossiers processed online	94.5% (H1)
Full-process online dossiers	98.2% (Q3)
Online payment	92.1% (Q3)

Source: Compiled by the authors from Ninh Binh Provincial People's Committee (2026a) [13] and Thanh Tra (2026) [23].

4.6 Obstacles to fully digital service

The province's report to the Ministry of Justice in October 2026 identifies obstacles that apply to all communes, including Hai Thinh (Fig 6).



Source: Compiled by the authors from Report No. 337/BC-UBND, 2026

Fig 6: Causes of the gap between online submission and fully digital service

Payment. The online payment button sometimes does not appear, payments already made may be recorded as failed, transfers through intermediary channels arrive slowly (in one case almost a month), and bank notices show amounts without dossier codes, so staff must match payments by hand.

Data. Names, dates of birth, addresses, identification numbers and asset information are inconsistent across systems, which prevents automatic matching. The National Portal still contains duplicate procedure codes, making it hard for citizens to find the correct procedure. For Hai Thinh, which merged three units with separate legacy records, the risk of address and record mismatches is particularly high.

Equipment. Scanning equipment and storage at some communes do not match the volume of records.

People and process. Staff shortages, weak coordination and incomplete adherence to procedures cause late handling in some fields, and land procedures remain complex. Part of the population still has limited access to technology. In a coastal commune, older residents and fishing households are most exposed to this barrier.

The province suspended the ranking of agencies' procedure handling from 1 March 2026 because data across systems were not yet consistent (Thanh Tra, 2026) [23]. This decision shows that data quality now limits not only service delivery but also the ability to measure it.

4.7 Demand-side initiatives

On the demand side, Ninh Binh has deployed the "Bình dân học vụ số" movement from province to commune. Youth Union volunteers have been stationed at commune PASCs to help residents submit dossiers online and use VNeID, and some have visited households to introduce online services (Dai bieu Nhan dan, 2025b) [4]. Commune police have been asked to organise the movement together with parish leaders, mass organisations and community digital technology teams (Dai bieu Nhan dan, 2025a) [3].

5. Discussion

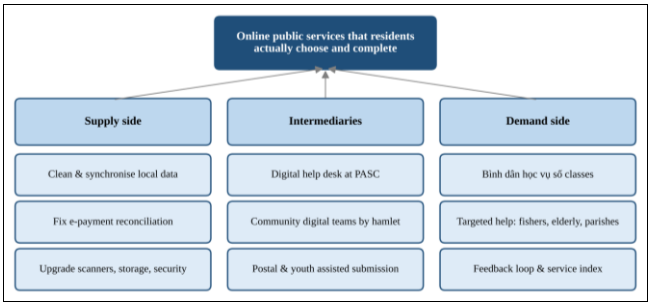
The case of Hai Thinh, viewed through provincial data, confirms a pattern observed in other studies of rapid e-government expansion: transaction volumes rise faster than integration (Layne and Lee, 2001; West, 2004) [9, 27]. Online submission has become the norm, but the steps that follow submission, such as payment reconciliation, data matching and digitisation, still contain manual work. As a result, part of the efficiency gain from digitisation is absorbed by new back-office tasks.

The gap between the online processing rate (over 90%) and the integration of documents into VNeID (under 50%) indicates that adoption in the sense of Carter and Bélanger (2005) [2], meaning citizens' voluntary choice of the digital channel, is still limited. The assisted-digital model at commune PASCs is a pragmatic response to the digital divide described by van Dijk (2020) [26]. It allows the commune to meet targets while residents learn. The risk is that indicators reward assisted submission and give little incentive to build residents' own skills.

For a coastal commune, the demand side has specific features. Fishers at sea cannot visit the PASC during office hours, so mobile-first services, clear status notifications and the option to authorise family members are more valuable to them than additional counter staff. Faith communities, as the province's decision to launch the movement in a parish suggests, can reach groups that rarely attend formal meetings. These local features support Janowski's (2015) [8] argument that digital government must eventually become contextualised.

6. Solutions

The paper proposes a three-layer set of solutions (Fig 7).



Source: Proposed by the authors

Fig 7: Proposed solutions for online public service delivery in Hai Thinh commune

Supply side. First, the commune should clean and synchronise local data from the three former units, prioritising standardised addresses, civil status and land records, and report mismatches to the provincial focal point using a simple error log. Second, it should work with the provincial PASC and banks to adopt payment references that include the dossier code, which would remove most manual reconciliation. Third, it should upgrade scanners, storage and information security according to the volume of records now handled at commune level.

Intermediaries. The PASC should operate a dedicated digital help desk staffed on a rotating basis, while community digital technology teams in each hamlet and residential group provide follow-up support. Postal staff and youth union members can assist with submission and result delivery, especially for households with members working at sea. Assisted dossiers should be recorded separately from self-submitted dossiers so that the commune can track progress towards independent use.

Demand side. "Bình dân học vụ số" sessions should be scheduled at times and places that fit fishing and farming calendars, including evenings, port areas and parish halls. Training should focus on a few high-frequency procedures and on integrating health insurance, social-security and

driving licence documents into VNeID. A short feedback form after each service, linked to the service index, would help the commune identify recurring problems.

7. Conclusion

This paper examined the current situation of digital transformation in online public service delivery in Hai Thinh commune, Ninh Binh province. Within a provincial context of very high online processing and payment rates, the study found that full digital service is still interrupted by problems in payment reconciliation, data consistency, duplicate procedure codes, equipment and residents' digital skills. The low integration of documents into VNeID suggests that much online submission is still assisted rather than independent.

For Hai Thinh, the priority is to move from "online submission" to "online completion by residents themselves". This requires coordinated action across the supply side, intermediaries and the demand side, adapted to the needs of a coastal commune.

The main limitation of the study is the lack of published commune-level data: the quantitative indicators used here are provincial, and the commune-level analysis rests on documentary evidence. Future work using the PASC's own statistics could test whether the patterns observed at provincial level hold in Hai Thinh. Future research could survey residents of Hai Thinh and neighbouring coastal communes to measure independent use, satisfaction and the specific barriers faced by fishing households and older residents.

8. Acknowledgements

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