Towards the Accomplishment of Single Identification Number in Indonesia

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Key words:

1. INTRODUCTION

Information is a precondition and main proponent in every decision making. In delivering information, every organization collects data with certain objectives, procedures and specifications.

Information can be general (spasial), as well as specified on certain attributes (textual) of a certain information object.

Basically, in collecting, processing, analyzing data, and presenting the information, each organization creates a unique identity on a certain object. Thus, a certain object might have several different and unique identities at the same time.

Collecting data with certain unique **objectives**, **procedures**, and **specifications**, makes the information becomes spatial. This will lead to the misunderstanding of a unique identity of a same object and so will complicate the information utilization.

One of the concrete examples of this misleading information utilization is when we look at the land numbering system done by BPN that uses 'Nomor Identifikasi Bidang' or NIB and another land numbering system applied by General Director of taxation through 'Nomor Objek Pajak' or NOP. Both systems give different identity number on the same object. And so does the numbering system of personal identification in demography (KTP), taxation (NPWP), police affairs (SIM & BPKB), and immigration system (Passport).

All above conditions prove that information identity grows and develops in each organization environment. This is one of the key issues in government and public service system.

It is important to realize that the heterogeneity of information without having an integrity and communication amongst organizations will give negatives impacts such as:

- Inefficient data collection because the same information is collected repeatedly on the same object.
- 2. Information becomes spatial due to the lack of communication and integrity of the information developed separately.
- 3. Leads into information misunderstanding. A single object might produce different information.

No.	Information Base	Document	Identity
1	Individual	KTP / ID card	KTP number
2	Personal	Family card	KK number
3	Personal	Passport	Passport number
4	Personal	SIM / Driving license	SIM number
5	Personal	BPKB	BPKB number
6	Personal	STNK	Police force
7	Personal	NPWP	NPWP number

8	Personal	N.I.P.	Nomor Induk Pegawai		
9	Personal	N.R.P.	Nomor Regristrasi Prajurit		
10	Personal	Banking	Credit card number		
11	Personal	Insurance	Policy number		
12	Personal	Insurance	ASKES number		
13	Personal	Insurance	ASTEK number		
14	Personal	Birth certificate	Birth certificate number		
15	Personal	Marriage certificate	Marriage certificate number		
16	Personal	Marriage letter	Marriage letter number		
17	Land (persil)	H.A.T. certificate	Certificate number (NIB)		
18	Land (persil)	IMB	IMB number		
19	Land (persil)	SPPT	SPPT number (NOP)		
20	Land (persil)	Electricity bill	Customer number		
21	Land (persil)	Telephone bill	Customer number		
22	Land (persil)	PDAM bill	Customer number		
23	Land (persil)	Cooking gas bill	Customer number		
24	Land (persil) & Personal	Census	Census number		
25	Law-based organization	Company	SIUP / API / APIT number		
26	Law-based organization	Big company	SIUP / API / APIT number		
27	Law-based organization	Company	Surat Ijin Tempat Usaha number		
28	Law-based organization	Company	Company establishment certificate		
29	Land (persil)	Regional asset	Regional asset inventory number		
30	Land (persil)	Country asset	Country asset inventory number		
31	Land (persil)	Mining privilege	Ijin Kuasa Tambang number		
32	Law-based organization	PEB & PIB	PEB & PIB number		

Table 1A. Unique identities throughout Indonesia

No.	Department	Intitution	Related Unit Organization	Document	Identity
1	Minister of Justice and Human Rights	Department of Justice and Human Rights	Immigration General Directorate	Passport	Passport number
			Regional Offices of Department of Justice and Human Rights	Company	Company establishment certificate
2	Minister of Health	Department of Health	Regional Offices of Health	Insurance	ASKES number
3	Minister of Manpower and Transmigration	Department of Manpower and Transmigration	Regional Offices of Department of Manpower and Transmigration	Insurance	ASTEK number
4	Minister of Religion	Department of Religion	Regional Offices of Department of Religion / KUA	Marriage letter	Marriage letter number

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No.	Department	Intitution	Related Unit Organization	Document	Identity
5	Minister of Commerce and Industry	Department of Commerce and Industry	Regional Offices of Department of Commerce and Industry	Company	SIUP / API / APIT number
6	Minister of Energy and Mineral Sources	Department of Energy and Mineral Sources	Regional Offices of Department of Energy and Mineral Sources	Mining privilege	Ijin Kuasa Tambang number
7	Minister of Finance	Department of Finance	Taxation General Directorate	NPWP	NPWP number
			KPP; KP PBB	SPPT	SPPT number (NOP)
			DJBC; Customs Office	PEB and PIB	PEB and PIB number
			Budget General Directorate	Country asset	Country asset inventory number
8	Indonesian Bank Governor	Indonesian Bank	Bank	Banking	Credit card
			Insurance company	Insurance	Policy number
9	TNI Commander	TNI	Department of Defense / TNI	N.R.P.	N.R.P
10	Chief of Indonesian Police Force	Indonesian Police Force	Polda Polwil / Polwiltabes	SIM BPKB	SIM number BPKB number
11	Chief of DIAN	DIVN	Polresta / Polres	STNK	STNK number
11	Chief of BKN	BKIN	BKN	N.I.P.	N.I.P
12	Chief of BPN	BPN	BPN / Office of land affairs	H.A.T certificate	Certificate number (NIB)
13	Chief of BPS	Statistics Central Bureau	BPS / Regional Offices of BPS	Census	Census number
14	Governor	or - Province Government	Regional Province Government Regional City /	KTP / ID Card	KTP number
			Regency Government Demography	Family Card	KK number
			Office and 'Catatan Sipil'	Birth certificate	Birth certificate number
				Marriage certificate	Marriage certificate number
			Regional Province Government Regional City /	IMB	IMB number

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No.	Department	- Intitution	Related Unit	Document	Identity
			Organization		
			Regency Government City Administrator		
			PDAM Regional Province Government PDAM Regional	PDAM Bill	Customer number
			City / Regency Government		*
			Regional Province Government Regional City /	Company	SIUP / API / APIT number
		~	Regency Government Regional Office of Department of Commerce and Industry	±	¥
		-	Regional Province Government Regional City / Regency Government	Company	Surat Ijin Tempat Usaha number
		0	Regional Province Government Regional City / Regency Government	Regional asset	Regional asset inventory number
15	Main Director	Telkom	Telkom	Telephone bill	Customer number
16	Main Director	- Gas Public Company	Gas Public Company	Cooking Gas	Customer number
17	Main Director	PLN	PLN	Electricity bill	Customer number

Table 1B. Unique Identities Throughout Indonesia Based on Organization

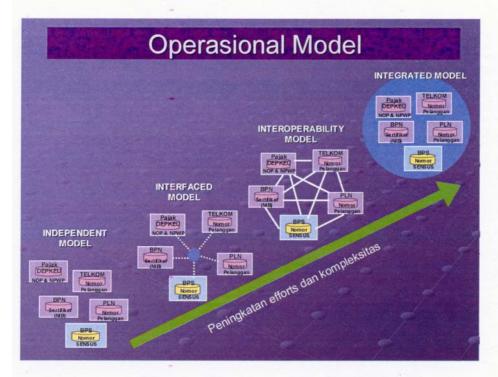
2. WHY INFORMATION INTEGRITY BECOMES IMPORTANT?

To create information synergy, integrity in information system is an issue needed to be accomplished. To have integrated information system, the most important issue to be created is the integrity of data base.

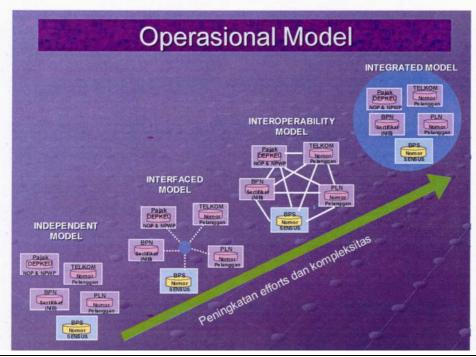
Integrity in information system basically would ease the process of presenting the information and yield benefits such as:

1. Respective organizations will be able to cooperate in utilizing the information as to facilitate achieving effective decision making.

- 2. By understanding the information needed by each organization, each organization can raise better issues with the support of integrated information.
- 3. Facilitating information access.
- 4. Facilitating standardized data exchange and data sharing.



Picture 1: Process of synergy and integration



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3. BASIC PRINCIPLES OF SINGLE IDENTIFICATION NUMBER (SIN)

Considering the importance of integrated information system, a single unique identity of the same object needed to be built. Each single area land should have the same identities though it is organized by multi organizations. And so do each personnel should have the same single identity for all kinds of purposes. With this concept a single unique identity can be used for several purposes by different organizations.

Relation between personnel and other objects can easily be done when a personnel has its own single unique identity. And so the analytical process of information that involves data from several organizations can be done without difficulties, which in turn will make it easy in presenting strategic information.

The basic principle of developing this Single Identification Number model is not breaking the system that has been built by each organization. In other words, in determining that unique identity, the accommodation of established identities built by each organization is needed.

3.1 COMMON IDENTIFICATION NUMBER

The development related to identity information system in Indonesia has produced a separated and overlapped system. Each identity is partial and closely related to spatial interest. This is an issue needed to be solved before entering the new integrated system, Single Identification Number (SIN). To achieve this, mainly by not breaking and still accommodating the established system, an additional identity that will be used together (COMMON IDENTIFICATION) is needed.

To solve the problem in determining that single unique identity (Single Identification Number), as not to ruining and integrating the old system, an additional identity that will be used as a general identity (common identification) is needed. With the additional common identification, a connection of one to many between the common and established identification (current identification) can be obtained. Common identification will be connected to all the established identities. Common identification will be the primary key, while current identification will be the secondary key.

Considering common identification will be the primary key, several conditions are required:

- 1. Unique, no twin identities.
- 2. Standard, identity structure must be the same nationally.
- 3. Complete, the data that will be used as identity should be nationwide.
- 4. Permanent, common identification must long lasting and eternal.

In addition to the above required analysis, to obtain a unique identity, a relation to a unique object identity needed to be constructed. Therefore, relation to spatial data is very possible. Those spatial data are always related their position in the certain area, represented by coordinates. Thus, every object position in earth always has different coordinate. In that way spatial data is always unique. Moreover, basically each object can always be referred to its position in earth surface (land area). Related to that condition or not, there are two organizations that organize

land spatial in big scale (parcel-based), BPN (land affairs organization) and PBB directorate.

On the second and third conditions, the data identities of two organizations are basically unique, but to further complete the data, further analysis of which organization (e.g. BAKOSURTANAL, PUSURTA, etc.) that is possible of completing the above requirements. As an illustration of the existence of big scale (parcelbased) spatial data base in Indonesia, Directorate of PBB owns an spatial data base that consists of more or less 84 million aspects. This can be a consideration.

All objects are basically can always be related to ground (person, house, vehicle, business unit, etc.)



Picture 3: Rational data with parcel map

Another important consideration is that almost all data (person, building, vehicle, certificate, Telkom, PDAM, PLN, etc.) can be referred to land (land-based) as described in the above diagram. Hence, utilization of land identity (NOP) as a common identification can be something worth considered.

Aside from the above description, the amount of data organized by PBB Directorate is a very huge information asset and even very strategic when integrated with other data base from other organizations. The integration of several data base with the data base of PBB Directorate that is land-based, can be treated as an analysis and decision making tool in supporting the target of tax sector (generate income based on parcel-based map).

TAHAPAN MENUJU SINGLE IDENTITY NUMBER ID LEMBAGA C P 0 A ID LEMBAGA M R SINGLE M S **ID LEMBAGA** BRIDGING IDENTITY UNIK 0 1 NUMBER N ID LEMBAGA A L ID LEMBAGA D PARCEL & PARCEL PERSONAL PERSONAL BASED BASED BASED

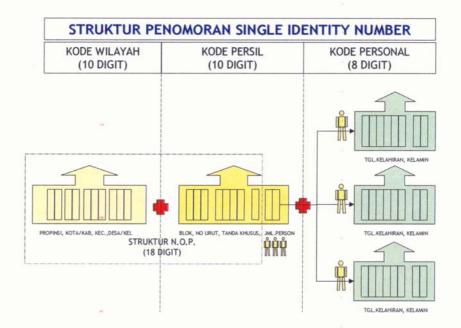
Picture 4. Stages towards accomplishing single identity number through Common Identification Number

3.2 ROLE OF TAXATION DATABASE

The rise of Indonesia from this current multi-dimension crisis we are facing can be done (one of so many ways) by accelerating the recovery of economic. Taxation that contributes more or less 70% of national income is a dominant factor in this recovery effort. Tax subject and object data base can not be avoided as the back bone in estimating and achieving tax target.

Directorate of PBB & BPHTB currently organize spatial tax object data base that covers more or less 84 million landscapes in Indonesia. This is really a strategic information asset when combined other related data base, especially as one of the information analysis and decision making tool in supporting the target from tax sector. The philosophy that can be used is "how to generate revenue based on parcel-based map."

The integration of spatial data base and attributes related to service improvement and income from tax sector, can only be done when respective stake holders carry out the same vision, mission and perception towards the usage of "common identification number" that leads to the usage of "single identification number" for many purposes; such as tax, demographic affairs, PLN, Telkom, PDAM, banking, health, BPS, BPN, Police force, Immigration, Regional affairs, and housing.



Picture 5: single identity numbering structure

4. THE IMPACT OF SINGLE IDENTIFICATION NUMBER ESTABLISHMENT

As previously mentioned the basic principle of the development of this Single Identification Number is that it does not break the established system built by each organization and still has to accommodate the established identity built by the organizations. One of the main benefits of the development of SIN is the creation of integrated data base that are attached to object (land, location, spatial) with the data base that are attached to subject (personnel, law-based organization).

Some benefits of the SIN development are as follow:

- As a digitalized system, SIN development gives a more optimum positive impact
 to public service. This is very possible considering that digital data has an easy
 to access character, easy to share, and easy to be integrated with other digital
 systems.
- 2. The integration of identity numbers from each organization into one single identity number system gives a positive impact that is very strategic. The organizations involved in the system are able to extract across sector information.

- 3. SIN as a monitoring instrument to the level of citizen obedience in fulfilling their obligations.
- 4. In the development planning process, SIN has a huge contribution for having detail information, covering social, economics, and environment of an area.
- 5. In a way of accelerating the country development in term of finance, SIN takes part as an instrument to track and analyze income potentials, especially those related to taxation.
- 6. SIN can be an embryo to e-Indonesia.
- 7. From the spatial point of view, SIN has several supremacies compared to a certain data base attached to a subject, especially in describing relative location of a subject in certain object.

In this current established system, generally each organization each subject position (personnel) in form of address (name and street number, city, and province). However, this kind of model still allows the likeliness of overlapping location, considering address is not a unique attribute. Another thing that might become an obstacle is that information tracking based on address is inefficient. On the other hand, SIN model yields unique (single) information on about personnel (subject) location in a certain object unit. Each land area (persil) as an information object unit will have its own number which will omit redundancy and overlapping.

5. PREPARATION TOWARDS SIN IMPLEMENTATION

In implementing SIN, the basic principles needed to be prepared are as follow:

5.1 A MODEL FOR INDONESIAN SINGLE IDENTIFICATION NUMBER (SIN)

- 1. Common Identification as a bridge to Single Identification Number
 - a. Common Identification Object as a mediator in integrating identity number that related to spatial-based information.
 - b. Common Identification Subject as a mediator in integrating identity number that related to personnel-based information.
- 2. Utilization of taxation data base as the back bone towards the establishment of Single Identification Number.
- Cooperating organizations that are involved in organizing this single identity need to coordinate to achieve efficiency and effectiveness of information utilization, avoiding duplication of data collection activities and inter-organization information.

5.2 TECHNICAL STANDARD AND FUNDAMENTAL DATASETS

- Data and information exchange are based on mutual need that covers standardization and specification, arranged based on the need of the user. To facilitate cross spatial exchange and data base connection, data format organized by each organization needs to be in conformity.
- 2. Formulation on the method to mobilize all national abilities needs to form efficient and effective national information management system.

- One way to have optimum benefit of information collection from all organizations in national development, a standardized guidance of mapping specification; that covers projection system, scale, data classification, mapping technology, and human resource qualification, needed to carry out.
- 4. All maps produced by mapping activities are national investments that are widely utilized by neither government nor private organizations inside the mapping network, and therefore having a high economical value.
- 5. Information integrity is needed in these aspects:
 - a. Selection of basic map that is land-based.
 - b. Information depth.
 - c. Data compilation method.
- 6. Potential information owned by neither government nor private sectors needed to be organized to always be put in togetherness based on the principles of national information management.

5.3 IMPLEMENTATION ISSUES

- 1. Information coordination and integration is a political will from the government that needs to be supported by all participating organizations.
- 2. Selection of type of data that can be provided to fulfill the needs of organization; either government or private owned.
- 3. Collection and Processing of spatial and textual data.
- 4. Utilization of digital map geo-reference that is land-based.
- Data maintenance.
- 6. Utilization of human resource, hard ware, soft ware, and program compiling as well as funding.
- 7. Information exchange mechanism and potential mapping between government and private sectors.
- 8. Information metadata owned by organizations needed to be developed as national information metadata data base, compliance with IT development.

6. ESTABLISHMENT OF NATIONAL DATA BANK

Integrity in vision, perception, and understanding between stakeholders that is shown in job coordination and collective information utilization across sectors gives a very positive impact to national development, where it can be assured that development will need the support of the right, accurate, up-to-date data and information. Thus, a set of digital device system is needed to record, analyze, as well as distribute all the data and information related to development planning and implementation. In nowadays information technology, this device known as National Data Bank holds a role of providing comprehensive data and information of a country, not to mention used by many stakeholders.

6.1 BASIC PRINCIPLE OF NATIONAL DATA BANK

National data bank has to have the principles of comprehensiveness, effective, and efficient in accumulating and integrating several organizations data base into one centralized and coordinated system. Comprehensive means National data bank is able to storage, analyze, and verify all information on assets and resources of neither country nor individuals.

Moreover, information inside National data bank **must be able to be shared** by all related organizations, although PRINCIPLES OF DATA AND INFORMATION SECRECY must be kept hold, whether it is related to individual, business unit, or government data / information. As the implication of this principles, will be found:

- "PUBLIC DOMAIN" data / information (can be accessed by the public by still keeping the principles of data and information secrecy). As an illustration, information that is categorized in this category is company profile that consists of information on company name, business category, location, etc.
- "RESRICTED" data / information (because of its strategic value, it can only be accessed by certain organizations). Example of this kind of data is finance portfolio of a company that consists of equity, stock composure, balance, income and outcome tax, etc.

6.2 NATIONAL DATA BANK FORMATION STRUCTURE

Basically National data bank is specified descriptions on information asset (tangible) that can be categorized into four main assets as follows:

1. Private asset information; describes specific information on land ownership, building, family list, vehicle, telephone, electricity, police, banking, taxation, spatial location, land affairs information, etc.

KONSEP INFO ASET PRIBADI

SIN: XX.XX.XXX.XXX



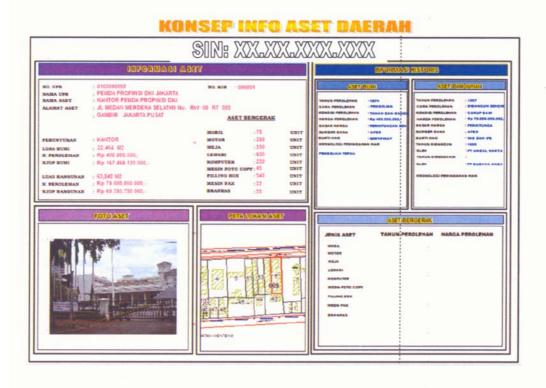
Non-private asset information (company); describes specific
information on share holders, board of commissioners, board of
directors, company profile, financial report, income and outcome tax,
sales, production and income, transaction, asset location, picture of
building, general information on company, land information, electricity
and telephone bill information, etc.

KONSEP INFO ASET NON PRIBADI

SIN: XX.XX.XXX.XXX



3. Regional asset information; describes specific information on asset name, allocation, historical information, asset location, asset type, book price of asset, earth asset, building asset, etc.



4. Country asset information; Related to country and regional assets, both can describe specific details and historical story of assets that are possessed by neither central or regional government that are meant to be as public and social facilities such as house of worship, sport facility, health facility, shelter forest, clean water, telecommunication, electricity, housing, police force, etc. This information can be very strategic because it can be utilized by almost all organizations with such competence like:

- Indonesian Bank

- BPS (Central Bureau Statistics)

- PDAM

- PLN

- TELKOM

- Department of Health

- Department of Religion

- Banking & Insurance

- Police force

- Department of Finance

- Department of Internal Affairs

- Department of Manpower and Transmigration

- Department of KIMPRASWIL

- BPN (National Defense Organization) - Department of Justice and Human Rights

- BKN (National Employment Organization)- Department of Energy and Mineral Sources

- City/Regency government

- Province government

- Central government

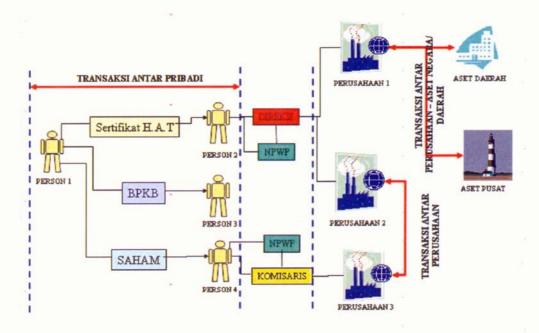
KONSEP INFO ASET NEGARA



Alongside its journey, in this National data bank should be made a TRANSPARANT SYSTEM THAT FACILITATES INTERACTION AND INTER-REACTION between:

- Personnel with personnel; such as sell and buy transaction that involves personnel and personnel.
- Personnel with non-personnel (company); such as an individual ownership of shares in a company.
- Personnel with regional / country asset; such as an individual involvement in public facility utilization.
- Non-personnel (company) with non-personnel (company); such as sell and buy transaction amongst companies.
- Non-personnel (company) with regional asset; such as company involvement in running / developing regional / country asset.

CONTOH MODEL KETERKAITAN ANTAR ASET (PRIBADI-PERUSAHAAN-DAERAH-PUSAT)



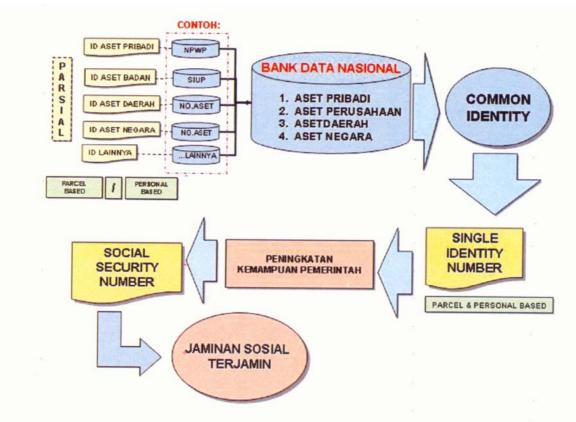
Picture 9: example of relation between assets (personnel-company-regional-central)

7. INCREASING GOVERNMENT CAPACITY AND CAPABILITY

The first step towards Single Identification Number is the establishment of National data bank; proceed with developing Common Identification, until finally Single Identification Number is formed.

The most logical implication as well as giving benefit from developing Single Identification Number is that there will be SYNERGIZED INFORMATION that will have greater impact on INCREASING GOVERNMENT CAPACITY AND CAPABILITY in public service, such as:

- Administration efficiency; spurred by the synergized information and efficient information utilization between sector and department. With this administration efficiency means cost (time and budget) will be more efficient.
- Ease of service; the presence of Single Identification Number device that is the subordinate of Common Identification system gives a lot of advantages. One of them is all organizations can verify the data related their data base organization versus other data base run by others. This will absolutely enhance public service.
- Increase of Country Income; this is very likely considering extracting and verifying information can be done effectively in supporting intensification and extensification of country income. Monitoring country income can be done in a more maximum way.



Picture 10: SIN as a mediator to SSN

If those three things above are fulfilled, i.e. ADMINISTRATION EFFICIENCY, EASE OF SERVICE, and INCREASE OF COUNTRY INCOME, at the end the government will have the power in managing administration efficiency as well as increasing GOVERNMENT'S SAVING, that in the end will impact on the increase of ability in securing society social welfare.

If the country can increase its income, then WELFARE AID / ASSURANCE to LESS FORTUNATE SOCIETY can be given; and so SOCIAL JUSTICE and the so long dreamed SOCIETY WELFARE will exist.

When the time has come; Single Identification Number is used as a way of giving welfare aid / assurance to less fortunate society; at that moment, SINGLE IDENTIFICATION NUMBER CHANGES (OR BECOMES ENTRY POINT) INTO SOCIAL SECURITY NUMBER IN INDONESIA.

8. CLOSING

Several conclusions that are the core of this paper will be carried out as the closing address. Conclusions can be drawn from the above essay are as follows:

- 1. The existence of identity information management in Indonesia is built on different way, standard, and specification. This at the end leads into different identity information amongst each organization. Thus, an effort of integration is needed to ensure integrated information as to produce useful information.
- A model of Single Identification Number system is needed to be developed.
 This system must consist of basic principle of not breaking the established
 system built by each organization. In other words, in determining this unique
 identity, accommodating the established identity done by each organization is
 important.
- 3. National Data Bank is a digital device system that is an integration of data base from related public service organization. This National Data Bank is set up to do recording, analyzing, as well as distributing all data and information related to planning and implementation of national development. Data Bank is built based on information (tangible) that consists of:
 - a. Personnel asset information.
 - b. Non-personnel (company) asset information.
 - c. Regional asset information.
 - d. Country asset information.
- Common Identification Number is the mediatory / bridge to each organization towards the implementation of Single Identification Number model that is expected to be done.
- 5. Information coordination and integration must be a political will from the government, supported by all related organizations.
- 6. Further analysis on technical standard and fundamental data base is needed as a way of having Single Identification Number in Indonesia.