Global e-Governance Guidelines for Government Departments

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ABSRATCT

Our vision needs to be global. There is an urgent need to have global identifications numbers for integrating various resources globally It is strange but a fact that in even hi-tech metro cities like Bangalore, Hyderabad in India who have contributed so much in ICT, executives of government departments can not count its resources – men, materials, assets & liabilities through click of mouse. As such government departments are still working in isolation. Government do consume lot of money in preparing Voter Id cards, but its voters data base have always severe discrepancies. Lot of money and time is also wasted in computerizing Birth ID, Caste ID, Census ID, Voter ID, Employee ID, Consumer ID, PAN ID, Pass Port ID, Death ID & BPL (below poverty line) ID etc, but none of these are being planned with vision to integrate the efforts globally. Likewise there are no global ICT guidelines for coding the Countries, States, Districts, Tehsils, Blocks, Villages, Colonies, Houses MP and MLA Constituency etc. The accounts head, roads, rivers, departments, materials, institutions etc are also needed to have unique global ID. Existing Postal Index No. (PIN) and International / STD Codes could be integrated into one Global 7 digit district ID, 11 digit colony/village ID, 15 digit residence ID, 18 digit personal ID, 13 digit project ID & 12 digit road ID etc. These ICT guidelines shall serve the purpose of global data base integration, tracking of terrorists, transparency in expenditures incurred on various accounts head enabling market forecasting and budgetary provisions more reliable & precise for any country, state, district or any part of the world.

Keywords: E-governance; Transparency; Global Personal-ID; Global Residence-ID

1. Global e-Governance Guidelines for Government Departments

Globalization of basic data base design with common tables, column structures is need of hour so that the data could be integrate able globally by click of mouse. To begin with, let us concentrate on the following ID's, to use e-Governance through ICT in technically & ethically correct manner:

- Global 15 Digits ID for Residence ID
- Global 18 Digits ID for Personal ID
- Global 15 Digit Accounts Head ID

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- Global 13 Digit Project ID
- Global 12 Digit Roads ID.
- Global Rivers, Bridges, Departments, Materials, Institutions, Hospitals, Technical Subjects, Papers, Lectures, Audio/Video Presentations ID etc.

2. Global 15 Digits Residence ID

Current practice now a days is that each department is creating it own coding system for Country, State, District, Tehsil / Council, Block, Village, Colonies, Vehicle registration district codes and Houses ID etc. This is creating a mess and utter confusion among us to remember these bulky codes and on the other hands these does not help in integrating objective of e-Governance globally. Thus time has come to permanently allot globally unique Residence ID.

More over it is observed that even in the modern colonies in Noida & Gurgaon etc sector numbers and house numbers have not been planned with any logical system to locate the residences with ease. Global 15 Digits House / Residence ID needs to be finalized & allotted by local administration with logistics to locate any residence without any difficulty. Thus old residence no. etc needs to be made redundant.

It is not possible to adopt currently used three digits ISD code, because of the fact that USA & Canada both have 001 as ISD code, whereas they are different countries. Prevailing STD codes, does not have any inbuilt logistics to assign unique codes for various states spread all over the world. As such it shall be more realistic that we now adopt four digits STD code, in which first two digits must represent unique code for states and the remaining last two digits can easily represent districts.

Existing pin code numbers are also not in a shape to be adopted globally. In India 6 digits pin code for Panjim, Mumbai, Bhopal are respectively 403001, 400001, 462001 which reveals that even first two digit does not represent states. It is proposed to abolish 6 digits pin code and adopt global 7 digits PIN / ISD + STD code up to district level, global 11 digits code up to locate specific colony/ Village etc, *and global 15 digits to locate any house built so far*.

Further we need to allot unique four digits codes for all colonies (one unique ID is to be allotted to include details relating to Road , Sector, Village, Colony etc – i.e. Nilgiri Tower, VIP Road, Sector 34 is to be allotted one Colony/ Village-ID). There could be max 9999 colonies / villages in a district. Thus 9999 colonies / villages can be coded under a district (say < 5000 for Colonies & > 5000 for Villages).

It is strongly recommended that we can begin with 15 digits Residence-ID as it is simple, small and looks manageable globally. For remaining information like tehsil, block, MP, MLA, construction year, plot / plinth area we can use auxiliary database table with 15 digit Residence-ID as primary key

Table 1: Residence ID

	Field	**Digits**	
Residence-ID	ISD – Country ID	3	7 digit global PIN / ISD, STD code up to district level, *11 digit up to colony level*, 15 digit up to house level
	STD Code – State + District ID	4	
	Colony-ID	4	
	Residential / Non Residential Building-ID	4	
Total Digits – Residence ID		15	

We can understand it better with following example:-

Table 2: Example of residence ID

Digits	Field	Code	Example
3	Country ID	091	India
2	State ID	23	UP
2	District ID	15	Meerut
4	Road / Sector / Village / Colony ID	0152	PWD Colony
4	Building-ID (may reserve 0001 to 8999 for Residences & 9001 t0 9999 for Non Residential Buildings)	0186	B 19
15	Residential / Non Residential Building-ID	091 23 15 0152 0186	

Further to this it shall be in the fitness of things to have following auxiliary table / information clubbed with Residence-ID as primary key, to retrieve the detailed information about a particular house or residence:-

Table 3: Residence-ID as primary key

Digits	Field	Code	Example	Remarks
1	**ResCode**	**091 23 15 0152 0186**		
1	Tehsil	1	Meerut	
2	Block	01	Meerut	
2	MP	42	Meerut	
3	MLA	421	Meerut	
2	Construction Year	21	1971	
1	Plot / Plinth M2	3	400 / 200	
15+11=26	**Residence Detailed Code**	**091 23 15 0152 0186 1 01 42 421 21 3**		

This can help us to retrieve list of houses tehsil / block / MP / MLA / construction year wise, by simple click of mouse.

Advantages

- It shall be much easier and logical in searching a house location.
- Inventory of residential and non residential buildings with year of construction may help evolve a system to declare those buildings unsafe for habitation.
- Management of House Tax, Water Tax, Electric Meters could be made more transparent and government revenues may increase drastically.
- It can help census department and election commissioner in preparing voters list etc.
- Terrorist and anti social elements can be tracked globally in a far more effective and fool proof manner.

Global 18 Digits Personal ID

We can observe that now a days each organization creates it own coding system for Birth ID, Caste ID, Census ID, Voter ID, Employee ID, Consumer ID, PAN ID, Pass Port ID, Death ID etc. This unsystematic approach is against the principle of e-Governance for integration of efforts globally. Thus let us plan single globally unique Personal ID.

Election Commission, Police, Census Directorate, Registrar Death/ Births, Marriage Registration Directorate, Health Ministry, UNDP, Education, Poverty Removal Dept, Planning Commission can be helped in bigger way. Now a days each of these agencies are spending a lot of money updating this data but in the manner in which they are doing, they can neither be accurate nor technically correct as efforts done in isolation without global vision to get them integrated is waste of time and money.

First 15 digits shall be the same as that in Residence-ID. Personal-ID shall constitute only 3 digits as in a particular house maximum 999 personals may be living in its life cycle. If need be one more digit could be increased later on as and when required with minor change in table structure of database.

Table 4: Personal ID

	Head	**Digits**	
Human Resource-ID	ISD	3	7 digit global PIN / ISD, STD code up to district level, *11 digit up to colony level*, 15 digit up to house level & 18 digit personal ID.
	STD Code	4	
	Colony-ID	4	
	Residential / Non Residential Building –ID	4	
	Personal-ID	3	
Total Digits – Personal ID		**18**	

We also need to have following information clubbed with above Personal-ID, to retrieve the detailed information about a particular person:-

Table 5: Example of Personal ID

Field	**Digits**	**Code**	**Example**	**Remarks**
Residence ID	15	**091 23 15 0152 0186**		It is proposed that for each location one need to have unique 18 digits Personal ID. To keep track of all the previous houses, we need to mark active field as 1, to ensure that this ID is not in the active list and to add him in list of new location fresh 18 digits ID has to be created.
Name	3	999	SUDHIR KUMAR	
Personal ID	18	**091 23 15 0152 0986 999**		
Active	1	0	0- If living in current house 1- If shifted to other house	
Old Personal IDs	1	0		
Stay Date – From –To	1	0		
Father	1	1	MS SINHA	
Mother	1	1	SHANTI SINHA	
Spouse	1	1	MANJUSHA SINHA	
DOB	1	1	09.07.1952	
Sex / Eye Colour	1	1	M	
Income Range	1	3	Rs 400000/=	
Blood Group	1	5	A+	
Religion / Caste	2	21	Hindu - Kaystha	
Disability	1	0	Nil	
Criminal Record	1	0	Nil	
Qualification	1	5	PG Engg, Dip Mgt	

Marriage	1	1	22.11.1980	0 - If Unmarried
Death Date	1	0		0 - If Live
Period Of Stay	1	0		0 – since birth
PAN – ID	1	1		
Voter-ID	1	1		
DL-ID	1	1		
Pass Port-ID	1	1		
Personal ID	**15+3+22= 40**	**091 23 15 0152 0986 999** 0 00 1 1 1 1 1 3 5 21 005 100 1111		

It is strongly recommended that we can begin with 18 digits Human Resource-ID as it is simple, small and looks manageable globally. For remaining personal details like, sex, income, blood group, religion etc, we can use auxiliary database table with 18 digit Human Resource-ID as primary key.

Advantages

- Criminal can be tracked globally in a far more effective and fool proof manner. as provision has to be made for the period of stay of particular person in a specific house.
- World population caste, country, District or Village wise etc could be counted by click of mouse.
- One single ID for making Birth ID, Caste ID, Census ID, Voter ID, Employee ID, Consumer ID, PAN ID, Pass Port ID, Death ID etc.
- Economic and Social status of cross section of society could be known by click of mouse.
- Election Commission, Police, Census Directorate, Registrar Death/ Births, Marriage Registration Directorate, Health Ministry, UNDP, Education, Poverty Removal Dept, Planning Commission can be helped.

Global 15 Digit Accounts Head ID

Accounting system prevailing in India in various government departments is quite obsolete, and so must be the case in other countries, and therefore the accounting system needs to be modernized to integrate e-Governance concept to ultimately bring e-Transparency to rope the ways and means to save a good amount of government funds which are being silently spent unnoticed on various adjustments related to those payments, which are not related sanctioned works on which funds are originally allocated.

It may be noted here that government issues administrative and financial approvals to a specific work based on preliminary estimate of work received from concerned government department. There are standard practices that administrative department can spend 15% over and above on the sanctioned cost without any effective fool proof inbuilt mechanism to monitor the heads of irregular expenditures.

It has been observed due to following reasons; there is always a gap in actual work executed and its cost:

- While granting the technical sanction of work, some extra items are included to justify the sanctioned cost, which may not be necessarily executed later, but saving on works is booked on different miscellaneous heads not under sanctioned works.
- Tenders might have received at lower to sanctioned cost, but savings are not passed on to government revenues.
- There is no mechanism to track as to why the concerned department has claimed 15% over and above on the sanctioned cost. However a Form BM 15 meant for the purpose is prepared but it is not effective at all for e-transparency purposes.
- Auditors are either technically incompetent or otherwise not willing to trap the mistake, due to

system being non transparent or have no scope of e-transparency.

- Government departments does not frame detailed item wise estimate, indicating exactly how much total quantity of labour and material (Cement, Steel, Bitumen, Diesel etc) is required and consumed and at what rates. As such PWA Form 36, to compare the sanctioned head wise cost & quantity provisions vis-à-vis actual expenditures & consumption is not generally made. Also PWA Form 64 showing monthly account of financial progress is not sub head wise detailed to the extent it could be precisely monitored.

Above state of affairs prevailing in our government setups could be successfully tackled if 15 digit accounting code is reworked, as existing following codes have problems coming in the way to make an e-Transparent accounting system:-

- Major Head – digit no. 1,2,3,4
- Sub. Major Head – digit no. 5,6
- Minor Head / Scheme – digit no. 7,8,9
- Sub. Minor Head – digit no. 10-11
- Detail Head – digit no. 12-13
- Object Head – digit no. 14-15

It has been observed that there is no duplicity of code description up to first four digit no.1,2,3,4 - Major Head and digit no.14,15 - Object Head. However Sub. Major Head – digit no. 5,6, Minor Head / Scheme – digit no. 7,8,9; Sub Minor Head Digit no. 10,11 & Detail Head digit no. 12,13 have duplicity and lot of confusions.

Grants codes, Major Head, Object Head also have been reshuffled so that there is no duplicity. Now Object Code has been modified as under to classify expenditures in various cost components of works, to enable e-transparency concepts in expenditures incurred.

01 Steel
02 Cement
03 Bitumen
04 Grit
05 Labour
06 Diesel, Petrol, Lubricants (POL) etc.

Advantages

- It could be found by click of mouse how much globally we are spending on Steel, Cement, Bitumen, Labour etc Department, Country, State, District, Scheme wise, which is just not possible with existing system.
- Rates, Quantities in similar projects could be monitored with proposed system.
- Manufacturers and Planning Commissions can get realistic feed beck, to plan & project supply and demand patterns more precisely.
- Shall pave the ways & means for more open competitive environment.
- Pilferages to the tune of thousands of crores could be saved and thus growth of country shall improve and price rise may be curbed.
- Nexus between executing and auditing agencies could be broken with proposed updated accounts head codes. Thus corruption could be totally rooted out, as system shall become transparent with inbuilt e-Governance features.

Global Project ID

There has been noticed great variation in rates, materials consumption, price escalation norms, cost & time of completion of various construction projects. The direct impact of it is the loss of government money, scope of corrupt practices, and above all the merit of individuals who are performing so good in the organizations do not get due recognitions and incentives. To achieve this objective digitized online Project Management Book (PMB) has been conceived, whose technical features are available in paper titling "e-GOVERNANCE in Government Departments - GATE WAY To TRANSPARENCY" being submitted separately for publication in ICEG'2008.

Global PMB-ID is to be constructed with the same first common 7 digits common code concept followed with 5 digits Project-ID details on similar lines (1st digit for project category, 2nd digit for executing agency, 3rd,4th,5th for project serial number).

Advantages

- Tracking of construction cost for same specifications of works shall be possible.
- Cost and quantity of materials and labour cost for same specifications of works shall be possible.
- Escalation components can be compared globally.
- The projects completion time, life cycle of product and running of plants and machines, including labour & skills deployment can be compared globally leading to reduction in costs on similar projects..

Global Road ID

Roads are very important not only to tourists, transporters but also for government and other road construction agencies as it consumes a lot of money. Road inventory includes, category & type of road, width, crust thicknesses, year of construction, year of cost & crust input, location of important building or service centers, GPS road levels, location of bridges & rivers, condition of roads etc chain age wise. A global database of roads could bring transparency in road construction & maintenance, leading to proper allocation of funds without any pilferages.

Table 6: Description of ID

Digits	Fields	Code	Description
3	Country	091	India
2	State	23	UP
2	District	15	Meerut
1	Category	1	NH,SH,MDR,ODR,VR
1	Type	1	Bituminous, Concrete, Bricks, Earthen
3	**ROAD_ID**	001	**091 23 15 1 1 001** - 12 digit road ID
1	Width -Meter	1	3.5 M x No Of Lanes
3	Length-KM	325	
3	Chain age KM	8	
1	Culverts	5	It is recommended to make this field alpha numeric to avail a to z unique 25 alphabets & 1 to 9 numbers = 34 single digit / alphabet code for culverts, river,s bridges, buildings etc.
1	Rivers, Canals	1	
1	Bridges, Flyovers	3	
2	Buildings	11	
2	Construction Yr	04	
3	Cost Rs Lac	100	

1	Tehsil	0	Meerut
1	Block	a	Meerut
4	Colony/Village	0033	
2	MP	23	
3	MLA	111	
7+5+28=40	Digit Road ID	**091 23 15 1 1 001** 325 8 5 1 3 11 04 100 0 a 0033 23 111	

It is strongly recommended that we can begin with 12 digits Road-ID as it is simple, small and looks manageable globally. For remaining road details like, width, length, chain age, cost etc, we can use auxiliary database table with 12 digits Human Resource-ID as primary key.

Advantages

- Tracking of conditions of roads with cost input chain age wise shall be possible.
- Duplicity of allotment of funds for the same road can be monitored precisely.
- Road levels taken by GPS etc could be used as asset for future works. There is a tendency in government department that every time new levels are taken and there is no provisions to compare this with old ones, leading to extra cost and scope of pilferages.
- Important buildings, river, bridges, culverts can be located for global use.

Concluding Remarks

Global codification and creation of ID's is a very tedious work. Basically National Informatics Centers (NIC) of all the countries needs to interact and agree to work on same table structures to build integrate able database. For this purpose computer societies of respective countries and ICEG etc could play lead role. Prior to this, it the job of local administration at district level to work on the lines as proposed in this paper, to create Residences-ID and Human Resource-ID. Authorities dealing with ISD, STD, Pin Code, Treasury Codes, Accounts Codes, State/ District/ Tehsil/ Block Codes, MP & MLA constituencies codes also need to do a very exhaustive exercise to remove duplicity and adopt a globally acceptable system of codes. Once it is done, we can start getting huge benefits in terms quality in our corporate planning, poverty removal, tracking of terrorists and forecasting of global economy based on transparent real online database. However if we are still not willing to adopt, global mission & vision as proposed in this paper, than we as such are helping the world to live in illusions, wasting a huge money and defeating the basic sprit of e-Governance.

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