

<u>Poor and Good Practice Case Studies</u> AN BBMP AND INDIAN CST TEAM'S INTENSIVE GPMS-FMS ANALYSIS AND SURVEY REPORT 2013

EXECUTIVE SUMMARY IN SHORT

Indian CST an public charitable Trust (Regd.) has been customizing our GPMS cloud computing solution and supporting BBMP from 2009 till date, 92000+ projects have been updated in the GPMS online, Trained nearly BBMP 7500 people i.e. engineers, staff, officers, across Head office, 8 Zones, 198 wards, 450 offices, integrating 936 bank branches, 500,000 plus receipts have been issued, nearly 50,000 bills have been cleared online in the GPMS-FMS transactions have crossed Re. 6,500 crores till date. In the health care too we have customized the GPMS for Birth and Death monitoring for reporting online and have already updated 6,00,00 people information online by integrating 1300 hospitals, 198 wards, 8 zones, head office, etc., as given by BBMP health department.

What was BBMP's then Current Financial and Monitoring Systems in place before Indian CST's GPMS-FMS was introduced:

- 1. Only manual hand written receipts were prepared and given to public
- 2. No real time information about Cash, Cheque, DD, Postal order of how much amount collected at each BBMP office was not known.
- 3. Only old data that too 3-4 months at head office and that too was out dated information was available.
- 4. No proper classification of R-code details was available
- 5. Various applications used at BBMP the data was lying at various places and data was not there when required to see complete position or status of revenues collected.
- 6. All bank general challan's were manually written for multiple remittances, which was very cumbersome to do, as banks wanted different challans for Private bank, Nationalized Bank cooperative Bank wise to be prepared
- 7. No reconciliation was done for the last few years
- 8. All reports were prepared manually which led to a lot of errors and incorrect information was made available to take decisions
- A lot of Mal practices was noticed but could not control as there was no system to detect these errors automatically.

Based on the above listed problems Integrated Technology platform BBMP-GPMS-FMS e-Governance cloud computing solutions was customized by Indian CST team accordingly and introduced into BBMP to Bring Efficiency, Transparency and Accountability across all publically funded projects as well as people participation into Governance where the citizen is now empowered to capture voice, document, photo, video, or even a signed note, validate the same and transmit it to the central server. Central Processing then takes over after acknowledging and giving a complaint ID to the sender for tracking progress achieved in processing the information.

- "GPMS Real Time Revenue Monitoring System" a GPMS Financial Management System to track all general receipts received and Payments done online by BBMP Head office, 8 zones, Divisions, Sub-Divisions and 198 wards across Bengaluru on daily basis to be reported online from across all 450 BBMP offices across Bengaluru.
- Integrating all the various 327+ RR codes related to all BBMP departments into GPMS-FMS
- 3. Integrating all the 936 Bank Branches with 450 BBMP offices into GPMS-FMS
- 4. Auto generation of Cash, DD, Cheque, Postal Orders Receipts, Bank challan's, Individual Bank Abstract, Party Receipt Print format, Individual Bank Abstract format, View to all Generated receipts online through GPMS-FMS
- 5. Automatic Bank reconciliation reports to be enabled online for Banks to update or upload the respective monthly statements directly into GPMS-FMS.
- 6. Master Revenue receipt Index to query for revenue records, Electronic Guarantee Letter for receipt information, Electronic Referral
- 7. The GPMS has been implemented successfully and now GPMS-FMS to be implemented as a pilot project on BBMP premises.
- 8. User management to be enabled where 1000 plus user names and passwords have to be given to each BBMP authorized employee by the head of department.
- 9. Training programs to be conducted by Indian CST team for 2500+ BBMP accounts officers who need to start to operate the GPMS-FMS and enter their transactions online.
- 10. All manual receipts issuing will be discontinued and withdrawn at BBMP, only receipts generated online through the GPMS FMS will be issued to citizens or organization that make payments done will have to be updated online.

Note: http://218.248.45.171/fms/

BBMP AND INDIAN CST

GPMS-FMS e-Governance municipality cloud computing solutions enabled to Bring in Efficiency-Transparency-Accountability that has doubled the revenues for the third largest Municipality in India

One single BBMP Ward Case Study 111 Shantala Nagar

Sl. No	Particulars	Properties Surveyed	Additional Amount Recovered
1.	Survey	734	
2.	Notices issued and	302	Result:
	payment received		Re. 15.66 crores collected by BBMP
3.	Notices sent	275	
4.	Notice yet to be issued	157	

Particular Commercial Property

Sl. No	Particulars	Property Built Area Surveyed	Amount Recovered
1.	As per sanction plan	15,26,849.63 lakh Sq. feet	
2.	Total Built up area	16,42,890.00 lakh Sq. feet	Result:
3.	SAS Declaration by	10,00,790.00 lakh Sq. feet	Difference detected 4 years
	owner		arrears =
4.	Difference	6,32,811.00 lakh Sq. feet	Re. 10.40 crores
5.	Helipad	830.00 lakh Sq. feet	collected by BBMP
6.	Total difference noticed	6,33,642.00 lakh Sq. feet	

Summary of Property Taxes collected across BBMP 198 wards

Sl. No	Particulars	Property Taxes collected	Amount Recovered
1.	No. of applications	5,36,502	
	arrears		
2.	Total amount no. of	39,929.10	
	applications		Result:
3.	Current year	9,95,907	1281,72.39
			Crores
4.	Total amount in lakh	88,243.29	Collected for the Year
5.	Total no. application	15,32,409	by BBMP Revenue Department
6.	Total Rupees amount in	1281,72.39	z, zzm. nerende bepartment
	lakh		



BBMP Indian CS1

How GPMS-FMS Solutions helps in increasing revenues at BBMP

SI. No	Particulars	Observation	Solution	Result
	Status of Individual	Not assessed	Has to be	Property taxes revenue collection
1.	Property in Bengaluru	properly as most of	assessed and Tax	will double from the existing
	who have paid	the people today are	has to be fixed as	Re.1250 crores to approx.
		voluntarily paying	per law	Re. 2500 crores for 2013-2014
		their property tax		Re. 2500 Clores 101 2015-2014
		through SAS		
	Current Status of	50% Properties that	Tax fixed as per	Re.1000 crores additional
2.	Individual Property in	have not paid their	law has to be	revenues to the municipality
	Bengaluru who have not	property TAXES in	collected	corporation
	paid	Bengaluru		
	Current Status of	Leakages noticed	Needs to be	Re. 800 crores additional
3.	property tax collection		plugged	revenues to the municipality
	leakage			corporation

According to Chairman, BBMP Town Planning Committee, there are more than **3,000** illegal hoardings in Bangalore which usually range in sizes of **30X50, 25X40** and **40X40** feet. BBMP gives permission to two types of hoardings: commercial and self-hoardings. While commercial hoardings are put up by advertising agencies on behalf of their clients, self-hoardings are put up by individuals. Rent for commercial hoardings will be around **40 per cent higher compared to self-hoardings**. Many agencies are cheating BBMP by applying for self-hoardings and later putting up commercial hoardings. http://www.newindianexpress.com/cities/bangalore/Illegal-Hoardings-Crop-Up-in-City/2014/01/02/article1978113.ece The city has more than 3,700 IT companies, 92 biotech companies and 1,200 BPO and call centres in its limits, also there are more than 6.5 lakh commercial buildings, 1.1 lakh industrial buildings, 8,000 PG hostels, 2,446 super speciality hospitals, 22,000 apartment complexes and many high-rises which can generate at least Rs 4,500 crore in property tax.

From the above Findings the following corrective steps have been suggested that will result in bring additional revenues to BBMP

BBMP GPMS-FMS Online Status as on 31-3-2013

SI. No.	Particulars	Total number of	Total Amount	
		Records	Re. Ps.	
1.	Total General Receipts collected across BBMP offices	2, 30, 529 receipts issued online to citizens	1141,1890818 .77	
2.	Total Property Taxes Collected	15,32409 total number of applications Recd.	1281,7200000 .00	
3.	Total Number of Payment made across BBMP offices	2648 Entries 31,783 Total Bills passed online	1015,7551884 .62	
4.	Total Taxes Deducted	31,783 Total Bills	6,8095383 .01	
5.	Work Bills Paid for the period 1st April 2012 - 06th Sep 2012	5261 Total Bills reported online	744,4312927 .00	
6.	Total Taxes Deducted against Work Bills	5261 Total Bills reported online	94,0228523 .00	

http://www.deccanherald.com/content/397766/palike-lets-user-friendly-complaints.html

Results Achieved / Impact

Prior to GIS, BBMP had 10.6 lakhs properties in its tax net. Using GIS, BBMP has now identified 16.19 lakh properties and among them 13.5 lakhs were brought into tax net. Steps are taken to bring the remaining into the tax net. This initiative has helped BBMP increase its revenue collection which is evident from the following table.

Year	Property Tax Collected (Re. Crores)
2006-07	360.00
2007-08	625.00
2008-09	566.00
2009-10	797.00
2010-11	1108.00
2011-12	1210.00
2012-13	1358.00
2013-14	1310.00 till 28-03-2014

Visit www.indiancst.in www.gpms.in/gpmswiki for more details

BBMP has over six lakh commercial buildings and over 16 lakh non-residential buildings within its limits. In its eight zones, the BBMP has not less than 30 buildings which fetch over Rs 5 crore property tax per annum. About 60 buildings have the potential to bring in Rs 3 crore, 125 buildings Rs 2 crore, nearly 400 buildings with the potential for Rs 1 crore and around 1,300 buildings Rs 50 lakh. These have been classified as high-value assessment structures. The BBMP has, in its limits, 1.1 lakh industrial buildings, 22,000 apartment structures, 8,000 paying guest accommodations, 53 tech parks, 107 commercial malls, 891 marriage halls, 1,200 party halls, 441 star hotels, 2,450 lodges and 2,446 medical institutions. The BBMP maybe on its deathbed financially, but the civic agency has the potential to earn at least Rs 4,500 crores property tax per annum and get itself out of the red, if the property tax is collected properly, the BBMP can tide over its financial crisis in the next three years. The officials need not measure the buildings. Instead, they can take details of the sanctioned building plan from the BBMP official website and re-validate them to fix the property tax. Even wrong declarations made in the Self-Assessment Scheme (SAS) can be detected with this method. https://www.deccanchronicle.com/140101/news-current-affairs/article/bbmp-can-rake-rs-4500-cr-if-only-it-tries

http://www.thehindu.com/news/cities/bangalore/bbmp-is-rs-700-crore-short-of-property-tax-target/article5849157.ece



Bank Reconciliation of Property Tax Collection for the period 01.04.2012 to 31.01.2013

SI No.	MONTH	CHQ COLLECTED	CHQ RETURNED	ME & EDC	ME & EDC REFUND	ACTUAL	TOTAL	
		AY & CY	AY & CY	AY & CY	AY & CY	ME & EDC CREDIT	COLLECTION	
		(RS)	(RS)	(RS)	(RS)			
		(A)	(B)	(C)	(D)	(E=C-D)	(A+B+E)	
1	April'12	2376436939.79	65562566.10	387335076.90	415215.00	386919861.90	2828919367.79	
2	May'12	3635864261.08	40947723.30	246020937.80	1002913.00	245018024.80	3921830009.18	
3	Jun' 12	1345619369.49	17681659.00	33856664.67	886606.00	32970058.67	1396271087.16	
4	July' 12	663394768.08	9166543.86	27384860.00	280698.00	27104162.00	699665473.94	
5	Aug'12	512746485.12	7499239.10	17552772.00	127461.00	17425311.00	537671035.22	
6	Sep' 12	485911779.85	9189224.00	12832678.00	15251.00	12817427.00	507918430.85	
7	Oct' 12	348384220.92	9749847.00	10857188.00	168372.00	10688816.00	368822883.92	
8	Nov' 12	398032508.70	6036383.40	10755623.00	83639.00	10671984.00	414740876.10	
9	Dec'12	454417292.93	7824192.00	13424153.00	73406.00	13350747.00	475592231.93	
10	Jan' 13	504700706.07	8945529.00	11326553.00	70695.00	11255858.00	524902093.07	
	Total	10725508332.03	182602906.76	771346506.37	3124256.00	768222250.37	11676333489.16	

PROPERTY TAX SYSTEM

Reports Dashboard for the year 2012-13 Property Tax Collections

Total Property Tax Collection Details till date								
Arr	ears	2012-13 As	ssessment year	Total				
No. of Applications	Total amount (in lakhs)	No. of Applications	Total Amount (in lakhs)	No. of Applications	Total Amount (in lakhs)			
453772	33423.61	935829	80905.40	1389601	114329.01			

	Year 2012-2013 Property Tax Collection Details till date								
Help Center Collections		Help Center Collections via Credit Card		Internet/Online Payment Collections		B-1 Collections		Total Collections (Help center, ARO, Internet & B-1)	
No. of	Total	No. of	Total	No. of	Total	No. of	Total	No. of	Total
Applicatio	Amt (in	Applica	Amount (in	Applicati	Amt (in	Applicat	Amt (in	Applicati	Amt (in
ns	lakhs)	tions	lakhs)	ons	lakhs)	ions	lakhs)	ons	lakhs)
747227	68729.33	3132	80.00	129576	701214	58947	5140.94	935829	80905.47

Year 2012-2013 Property Tax Collection Details on 30.01.2013										
Help Ce	nter	Help (Center	Internet/	Online	B-1 Colle	ections	Total Col	Total Collections	
Collect	Collections		s via Credit	Payment				(Help cen	ter, ARO,	
		Ca	ırd	Collections				Internet & B-1)		
No. of	Total	No. of	Total	No. of	Total	No. of	Total	No. of	Total	
Applicatio	Amt	Applicati	Amount	Applicatio	Amt	Applicatio	Amt (in	Applicatio	Amt (in	
ns	(in	ons	(in lakhs)	ns	(in	ns	lakhs)	ns	lakhs)	
	lakhs)				lakhs)					
33	3.76	0	0.00	14	0.88	3	1.21	50	5.85	

2012-2013 SWM Cess Collection Details till date

Total Amount (in Lakhs)	2896.37

BBMP Property Tax dashboard states that the property tax collected from the public for the period 01.04.2012 to 30.01.2013 amounts to **Rs. 114329.01/- (in lakhs).**

As per IDBI Bank, the Total Property Tax collected for the period 01.04.2012 to 31.01.2013, amounts to Rs. 116763.33 (in lakhs). This figure includes the cheques collected (arrears and current year) plus cheques returned (arrears and current year) plus ME & EDC (arrears and current year) minus ME & EDC refund (arrears and current year). We have included returned cheques too in the total collection. If, the returned cheques are excluded then, the actual credit in the respective ARO accounts would be Rs. 114937.30/- (in lakhs)

At, present, we can furnish the data such as respective ARO's account no, date of clearing, chq no, application no/PID no, (if, it is mentioned), arrears/current year collection and amount for your reconciliation purpose. The complete MIS which you are seeking in excel format can be furnished only when BBMP shares the control Sheet data in soft copy such as



BBMP application No. CC code, cheque no, cheque date, bank name, branch name, MICR no, tax paid amount, control sheet date and others. We can update the status in the Control Sheet with the information such as date of deposit, date of encashment, status of transaction (successful or not), mode of collection (help centre collection or B-1 centre collection or Internet Payment gateway) etc. This is feasible only when the Control Sheets (soft copy) are shared with us on a daily basis by ARO's or BBMP head office.

	Current Status of BBMP Projects available on GPMS and IFMS systems								
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined						
1.	Total Projects in IFMS								
		59,121	92,715						
2.	Total Projects in GPMS								
		33,594							

	Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined	
1.	Total IFMS & BBMP Project without duplicate	40,334	92,715	
2.	Total IFMS & BBMP Project duplicate	52,381		

	Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates	
			when combined	
1.	GPMS Projects not in IFMS			
		5,855	40,334	
2.	IFMS Projects not in GPMS			
		34,479		

	Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined	
1.	Total matching project of GPMS in IFMS Is (exist in IFMS)	27,892	51,868	
2.	Total matching project of GPMS in IFMS	23,976		

Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects without Work code including Duplicates when combined
1.	Projects without Work code in GPMS	1,544	2,606
2.	Projects without Work code in IFMS	1,062	

	Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined difference	
1.	IFMS and GPMS after duplicate			
		64,976	3,097	
2.	GPMS and IFMS after duplicate			
		68,073		

Current Status of BBMP Projects available on GPMS			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined
1.	GPMS without Duplicate	27,704	33,554
2.	GPMS Duplicate	5,890	

	Current Status of BBMP Projects available on GPMS and IFMS systems			
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when	
			combined Unique	
1.	GPMS and IFMS after duplicate			
		68,073	62,183	
2.	GPMS and IFMS after duplicate			
	Difference	5,890		



BBM			Indian CS1
	Current Status	of BBMP Projects a	available on GPMS
Sl.no	Particulars	Total Projects	Total Projects including Duplicates when combined difference
1.	Total Projects across		
	All 8 Zones	49,871	10,822
2.	Total Projects across		
	All 198 Wards	41,787	
3.	Total Projects across		
	All Head office Chief Engineers	2,798	
4.	Completed Projects	10,344	
5.	Started	1	68, 064
6.	Work in Progress Projects	6,468	
7.	Yet to start Projects	651	
8.	File in Process Projects	2,676	
9.	Suspended Projects	75	
10	Projects without Work Status	39,328	
11	Projects Without Work code	1,536	
12	Projects Without Zone	6,874	
13	Projects Without Location	8,522	
14	Total Projects in IFMS	59,121	
	Total Projects in GPMS		92,715



BRIM			indian CST
15	Total Projects in IFMS	59,121	
16	Total Projects in GPMS	33,594	92,715
17	GPMS Projects not in IFMS	5,855	
18	IFMS Projects not in GPMS	34,479	40,334
19	Total Projects of East Zone	11,381	
20	Total Projects of West Zone	8,657	49,871
21	Total Projects of South Zone	10,026	
22	Total Projects of Rajarajeshwarinagar Zone	4,261	



BBMP Indian CST 23 Total Projects of 3,590 Bommanahalli Zone 24 Total Projects of 4,064 Yelahanka Zone 25 Total Projects of 3,103 Dasarahalli Zone 26 Total Projects of 4789 Mahadevapura Zone 27 Total Projects of Various CE's at Head Office 2,798 28 Progress of Works 2008/09 6783 **Projects** 6,783 29 Progress of Works 2009/10 5050 **Projects** 5,050 30 Cost Over Run Projects 2093 2093 31 Cost Saving Projects 4240 4,240 32 Time Over Run Projects 2885 2,885 33 Projects without Work code in 1,544 **GPMS** 2,606 Projects without Work code in **IFMS** 1,062



BBMP Indian CST

DDIV	IF		iliulali C31
34	Total Records Modified in		
	GPMS by BBMP Engineers		
			1,035
3.	Total Project Work Codes		
	Modified by BBMP Engineers		_
			5
3	Total Number of Complaints	New : 246	
	received on	Assigned: 262	525
	Online Help Deek	Closed: 17	525
	Online Help Desk		
3	7 Total number of BBMP		
	Projects seen with		
			59,542
	incomplete data		
3	8 Total Number of all BBMP		
	Employees Integrated into		
	GPMS		12,947
3	Total Number of all BBMP		
	Registered Contractors		2.040
	Integrated into GPMS		3,040
4	Total Number of GPMS		
	User names and Passwords		12,947
	Released		12,347
4	For Total Number of BBMP		
	Engineers Training program		7.500
	conducted across 198 Wards		7,500

http://www.deccanherald.com/content/397766/palike-lets-user-friendly-complaints.html



A Snapshot view of GPMS-FMS Solution on-going Implementation at BBMP as on 5-11-2013 and the Receipts and Payments Transactions through the GPMS-FMS crosses Re. 6500 crores

Sl. No	Particulars	Number / Amount
1.	BBMP Head Office	1
2.	BBMP Zones	8
3.	BBMP Divisions	30
4.	BBMP Sub-Divisions	64
5.	BBMP Wards	198
6.	BBMP offices	450
7.	BBMP DDO offices	1637
8.	BBMP Bank Branches Integrated	936
9.	P-codes	1747
10.	R-codes	327
11.	Bill Types	28
12.	Annexures and Certificates	95
13.	Number of Users in BBMP	716
	Finance Dept. FMS	
14.	Number of Users in GPMS	12750
15.	Number of Bills (Payments) done	5261
16.	Number of Work Bills Payments	51,103
	done	
17.	Monthly Bank Statements /	130
	Deposits updated	
18.	Receipts issued through GPMS-	3,94,001
	FMS	
19.	Payments Received through	Re. 1921, 64, 63, 431.40
	GPMS-FMS	
20.	Property Taxes updated in the	Re. 1230, 30, 99, 000.00
	GPMS-FMS	
21.	Payments Issued through GPMS-	Re. 1963, 79, 67, 553.50
	FMS	
22.	Payments of Work Bills Done	Re. 744, 43, 12, 927.00
	April 2012-Sep 2012	
23.	Complaints Received	1127
24.	Complaints Resolved	988
25.	Complaints un-resolved	06
26.	Complaints to be resolved in	27
	progress	



A Snapshot view of GPMS-FMS Solution on-going Implementation at BBMP as on 5-11-2013

Name of the BBMP Project	Status	Remarks
1) BBMP GPMS Project: Monitoring of Municipality Projects across Urban Bengaluru and Rural Bengaluru.	Implemented and currently running successfully for the last 4 years and still been supported by Indian CST till date	92000 Municipality projects worth Rs 14,000 crores across 8 Head offices, 198 wards, 7500+ Engineers get monitored for efficient Project execution and benefits reaching the public.
2) GPMS-BBMP FMS Project :- Integrated Financial Management System for Payments and Revenue Receipts.	Implemented and running successfully.	Incoming general receipts (including help-centres) of approx. 27 departments of BBMP (covering 8 zones, 1 Head Office, 198 wards, 450 Offices) Integrated 936 Bank Branches
3) GPMS-BBMP-Health Birth and Death Records system	Implemented and running successfully.	Used for records, verification, printing of birth and death certificates.
4) BBMP Health Care Services	System study done. Implementation in progress.	This is for their staff of 12000 plus BBMP employees dependents for the medical reimbursements.
5) BBMP Property Tax Management System:	System study done. Integration with GPMS-FMS is underway	Property tax collection and decision reports across 20 + Lakh Property entities and generate real time Receipts online for citizens along with Multiple Payment Gateway integration underway
6) BBMP FMS Financial Management System for Receipts / Payments:	On-going Pilot project Implementation that is running successfully at Head office and now is being extended to all their 450 BBMP offices and Bangalore One Centres across Bangalore.	Seeing the successful implementation of the Payments, Receipts systems that has been integrated with 936 bank branches across employee payments, Contractor payments, salary, tax deduction etc.

The following Table gives an – AS-IS scenario of most Municipal Corporations in India. It also gives a 'TO-BE' scenario envisaged by them, along with what Indian CST is able to deliver.

Parameter for Transformation	As is situation	То Ве	Indian CST Deliverable
Innovation and leadership	 No real time information No integration No validation Applications are in silos Transparency, Efficiency and Accountability is lacking. Skillset for this is inadequate. 	BBMP wants a real time monitoring system for e governance reforms initiative To have an real time MIS for Reports online	 Customized GPMS-FMS (Global Project Monitoring System & Financial Management System) Bring Public participation into BBMP governance Integrate all Departments together.
Information analysis	 No data is available for real-time analysis Presently done manually with various Permutations and Combinations of requirements with assumptions 	BBMP looking for Real time integrated data analysis report with various hierarchy views	Integrated Business intelligence reports for various Department heads to view and take decisions. In real time.
Strategic planning	 Communication between stakeholders needs improvement to avoid misunderstandings There is no computer skill awareness as a common platform to use by everyone. Most applications / Solutions are not web based. 	 To give proper infrastructure with connectivity and train the manpower to use and update info online from their offices. Plan to develop a platform for above 	 Integrate all information Integrate all departments together to enable exchange of information. Deliver an integrated cloud computing platform to enable any user to update information online. Handhold training program for BBMP Engineers to use system themselves



ಬೃಹ<mark>ತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ</mark> BRUHAT BENGALURU MAHANAGARA PALIKA



SLOBAL PROJECT MANAGEMENT SYSTEM WITH REMOTE EYE MONITORING SYSTEM

DDIVIF			Illulali C31
Process Improvement	Everything is manual	BBMP wants e governance reforms implementation and to be the trend setters by enabling computerization of Departments	 Enable a Paperless office Bringing Efficiency, Transparency and Accountability along with Crowd Sourcing, Cloud Computing, Public Participation in Monitoring and real- time Feedback to Engineers.
Human resource development	Capacity building of all users of the system being done on need based manner on manual systems	Enable all BBMP Engineers to be computer savvy Conduct Training Programs	 Implement user-friendly cloud computing platform with training of 7500 engineers Conduct various training sessions for each engineer to feel comfortable and confident to update data in real-time Conduct public awareness campaigns enable BBMP get correct and validated real time info online.
Operational Results	BBMP Heads of Departments were not aware of how many Projects were there at any point of time.	Get data from Engineers in real time and integrate it to their general Receipts and Payment Modules.	 Indian CST helped BBMP Engineers to update 92000 projects. Bring in 5,00,000 general receipts issued to citizens amounting to 6500 crores, in real time. Bring payments issued by BBMP to various stakeholders and paid from 2087 offices across Bangalore. Enable HOD's to intervene and take decisions based on above.



ಬೃಹ<mark>ತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ</mark> ಪಾಲಿಕೆ BRUHAT BENGALURU MAHANAGARA PALIKA

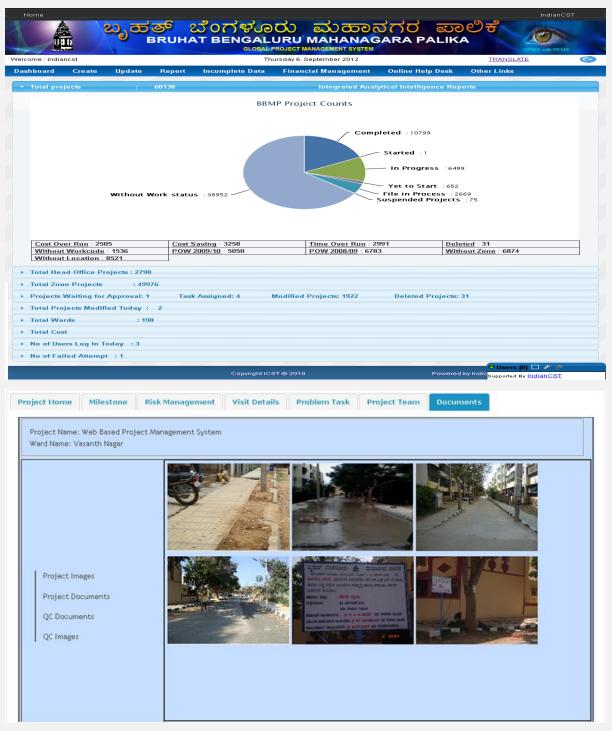


SLOBAL PROJECT MANAGEMENT SYSTEM WITH REMOTE EYE MONITORING SYSTEM

Stakeholder satisfaction	BBMP looking for improving their e-Governance Implementation and Brand Value.	Attempt to bring all round performance monitoring system at all their various 450 offices across Bangalore.	 Deliver a robust GPMS system to enable all 198 wards, in real time effectively over a long term perspective. Indian CST helped BBMP to Validate data, Update the Engineers skillsets. Demonstrate Benefits Jointly present the BBMP case study not only to other municipality / departments in India, but also to offer this GPMS-FMS e-tool to the other municipalities across India and world.
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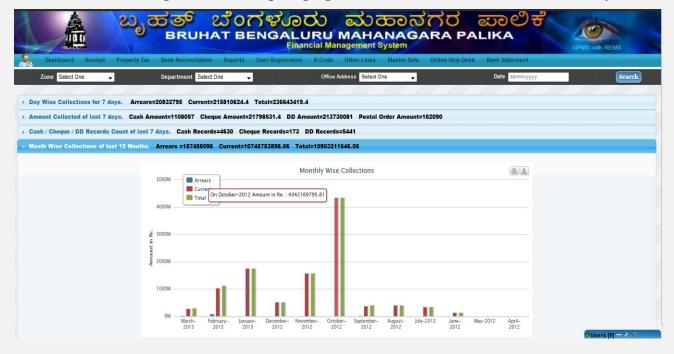


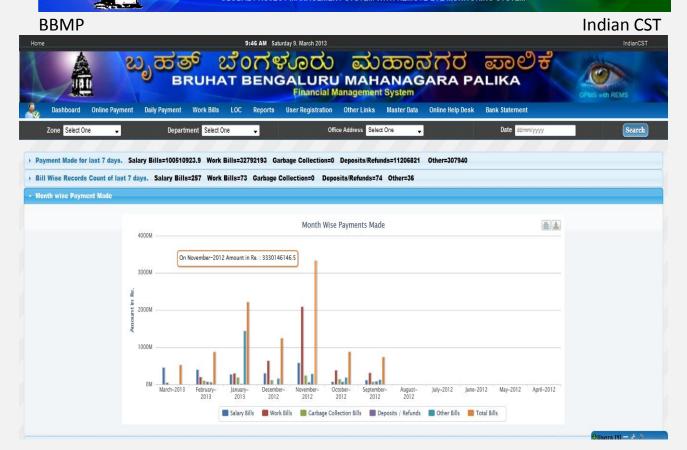
BBMP has been using this Cloud computing e-governance GPMS-FMS solution success fully.





BBMP has been using this Cloud computing e-governance GPMS-FMS solution success fully.





BBMP has been using this Cloud computing e-governance GPMS-FMS solution success fully.



ಬೃಹ<mark>ತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ</mark> ಪಾಲಿಕೆ BRUHAT BENGALURU MAHANAGARA PALIKA

SLOBAL PROJECT MANAGEMENT SYSTEM WITH REMOTE EYE MONITORING SYSTEM

BBMP Indian CST ಬೆಂಗಳೂರು ಮಹಾನಗರ AT BENGALURU MAHANAGARA I 100 CASH / CHEOUE / DD / POSTAL ORDER WISE REVENUE RECEIPT DATA ENTRY SHEET VIEW Department Zone Sub-Divison Receipt Date:From Party Name Ward Name ----Select--Search Show 6 Perpage << < 1 Go > >> SI. No. Receipt No. R-Code & Amount Details O Total Amount in ₹ Party Name : K.VENKATRAMANI & V.RAJAMATHANGI View R-Code & Amount Paid Details Zone:
Rajarajeshwarinagar
Division:
Yeshwanthpur
Sub-Division:
GoraguntePalya
Ward Name & No.:
H.M.T (38) 06-09-2012 View R-Code & Amount Paid Details 130600.00 Zone: Bommanahalli Division: Bangalore South Sub-Division: Anjanapur Ward Name & No.: Anjanapur (190) CR/BFORM /321/2012-13 Party Name : M.N.GURUPRASAD View R-Code & Amount Paid Details 100.00 Anjanapur (186)
Zone: Mahadevapura
Division: K.R.Puram
Sub-Division:
HoraMavu
Ward Name & No.:
Ramamuthy
Nagar (20) RD/RDAROHRMV /09/2012-13 (Sep.0102 View R-Code & Amount Paid Details Nagar (26) Zone: Mahadevapura Division: Mahadevapura Sub-Division: Marathahalli Ward Name & No.: Marathalli (86) Party Name: M.Venkatachalapathi View R-Code & Amount Paid Details Total Amount : T 1001622204.26/ Total Amount In Words : Rs.One Arab Sixteen Lakh Twenty Two Thousand Two Hundred Four And Paise Twenty Six Only ಬೆಂಗಳೂರು ಮಹಾನಗರ BENGALURU MAHANAGARA PALIKA Name Of the Department : ----Select-General Receipts Department Wise Collection Details GAD - Management 33720482 Finance & Accounts 446104 135084483.26 135640405.26 Horticulture & Environmental Management 0 595796 Health - Medical 500 315020 315020 10 33057581 11 Engineering - Multi Purpose Engineering 885311 885311 13 Engineering - Road Related Infrastructure o 98930 98930 14 Engineering Traffic Engineering Cell 232136 232136 10541901 991188003.26 1001850222.26



BBMP along with Indian CAT has been using this Cloud computing e-governance GPMS-FMS
Training Programs for all its BBMP engineers, officers and staff



- 7500 BBMP engineers, officers and staff were trained on how to use and operate GPMS-FMS in the training programs conducted by Indian CST along with onsite support has been provided by them that is going on for the last 3 years.
- Indian CST is continuing to help BBMP in the Implementation across Bangalore Urban and Bangalore Rural by enabling the Public participation and monitor their feedback, complaints, and comments on the GPMS portal.
- 3. BBMP healthcare department too has benefited by GPMS as it has integrated at all the 1800 govt, private, PHC, clinics, nursing homes, Hospitals across Bangalore Urban and Rural to update online



BBMP

all the information online in real time about the Birth and Death happening. Till date 6,00,000 lakhs people's Birth and Death has been updated on our GPMS-BBMP online.

- 4. GPMS Revenue Monitoring System: BBMP Revenue department and Accounts department too has benefited by using GPMS, as it has integrated all the various 936 branches of nationalized, private, cooperative, banks across Bengaluru to their BBMP departments together across 8 zones, 198 wards for each engineer, accounts officers, revenue inspectors, head of accounts departments to report revenue collected or payments done on daily basis in real time brining in total transparency in its all the BBMP operations.
- Nearly 500,000 receipts and payments online transactions amounting to Re. 6500 crores plus has been given to citizens or stake holders of Bangalore and BBMP stake holders generated from GPMS-FMS and Daily Total amount of entered property Tax receipts issued view enabled online
- 6. Nearly various stake holders 50,000 plus invoices, DC bills, payments has been released amounting to another Re.000's crores plus has been done online using GPMS-FMS which includes, Salary Bills, Garbage collections, deposits, Payment to contractors etc.
- 7. Bank reconciliation too has been enabled using our GPMS-FMS for the very first time
- 8. This by far is the single largest collection of civil infrastructure project information in any government body in Karnataka.
- 9. Indian CST acting as the citizen's initiative interface for the successful implementation of the said project
- 10. Today this can be promoted as an end-to-end GPMS cloud computing solution for any municipality in the country with local customization

1. Some of these details can be viewed here online:

- a. http://bbmp.gov.in/web-based-project-management-system
- b. BBMP Financial Management Solution Login Page
- c. BBMP Financial Mangement Public Information
- d. <u>Up to Date Summary of Online Receipts of Property Tax</u>
- e. Work Bill Report of 15 Nov 2012 (Similar reports can be generated for other days)

World Bank Case Study

Global Project Monitoring System (GPMS), Indian CST, India

Background: Indian CST has developed a distinctive online Project Management platform called GPMS (www.indiancst.in) in 2009 for programme and project monitoring. Majority of the users are from public sector.

Features at a Glance

- ✓ Remote monitoring process for ongoing projects at multiple locations.
- ✓ In-built escalation mechanism where superiors can quickly identify non-conformances and initiate interventions leading to prevention of delays and cost over runs.
- ✓ Allows graphical information exchange including videos and photographs
- Conversion of unstructured data to structured data, while maintaining their integrity
- ✓ Real time communication and information sharing
- ✓ Accessibility from anytime, anywhere, any device

System Outcome:

- Improve monitoring and performance management of projects
- Acts as a useful decision support system based on information from the field
- Improve transparency and accountability of projects undertaken

Strategic Development Decisions:

✓ Global Project Management Solution

Training & Mentoring Build Beach (GMAS)

Birth, Death Registration

Cowermance Management-Solice Management-Project Constitution and Solice Management-Project Communications Management-Project Communications Management-Project Frocurement Management-Project Man

Integrated GPMS e-Governance Cloud Computing Solutions

National Data Sharing and Accessibility Policy-2012 (NDSAP-2012)
Department of Science & Technology Ministry of science & Technology Government of India enabled in GPMS....The National Data Sharing and Accessibility Policy will apply to all data and information created, generated, collected and archived using public funds provided by Government of India directly or through authorized agencies by various Ministries / Departments/Organizations / Agencies and Autonomous bodies.

is offered as a management tool that will introduce high end technological platforms like cloud computing and crowd sourcing.

Impact

- ✓ Used across a range of stakeholders including Ministries, Departments and District Municipalities
- ✓ Transparency and accountability through field data capture
- ✓ Improve the efficacy of the delivery of projects and eliminate corruption

The core strength of the GPMS is the online availability of real-time data that gets correlated constantly to provide reliable information and actionable intelligence. The GPMS-enabled remote monitoring process for ongoing projects at multiple locations leaves little scope for inefficiency or mishandling of projects and the funds associated with them, irrespective of the position in the government administrative hierarchy.



Indian CST would like to offer following GPMS cloud computing solutions or Urban Municipalities across India use:

- 1. **GPMS for Municipalities** for monitoring infrastructure Projects
- 2. **GPMS for Finance Management System (FMS)** General Payments and Receipts monitoring online,
- 3. **GPMS for Birth and Death monitoring online** reporting from various Hospitals, PHC's, Nursing homes, etc.
- 4. **GPMS** for Education for monitoring students , examinations, (for Preliminary, High school, Pre-University, UG and PG)
- 5. **GPMS** for Health Information Monitoring Cloud Based solutions for Hospital Information monitoring system, Patient Monitoring System, for PHC, State,
- 6. GPMS-Connect- A cloud based video conferencing and surveillance online facility
- 7. **GPMS Mobile Survey System** for beneficiary monitoring of BPL families along with their social-demographic details for online capturing
- 8. **GPMS for MSME-** A cloud based solution to monitor Minor, Small, Medium, Enetrprises programs and registrations online, Indian CST consultancy for preparing Business Proposals, Connect for Offering Video conferencing, MSME GPMS IRMS Customer relationship management system
- 9. **GPMS-IRMS cloud solutions**, GPMS-E-File Management system for documentation monitoring system, Citizens charter services, Investment Relationship management system.
- 10. **GPMS-Cloud computing UID**, programs, Schemes, Govt Fund, CSIR-800-Products and technologies monitoring services online.
- 11. **GPMS for the rural districts** The Valsad GPMS-REMS Solution can be replicated across State
- 12. **GPMS for the Low cost housing** The IAY Bihar GPMS-REMS Solution can be replicated across State
- 13. **GPMS** for the entire state- The Delhi government GPMS-REMS Solution can be replicated across India
- 14. **GPMS for PWD Departments** The GPMS-REMS-BBMP along with GPMS_REMS NHAI solution can be replicated across India

BBMP Indian CST

Bangalore Municipality Gets Tech Savy

The BBMP is transforming from its Archaic system of financial monitoring to the modern financial management system on real-time basis with the help of a pioneering technology developed by the Indian CST. The service is scalable, Secure and efficient, while improving over all service and reducing costs.

Mention government projects and the first reaction is great deal of scepticism about feasibility, executive skills, quality of the end product and timely completion. While this may sound extremely cynical and even unjustified, unfortunately interactions with the government authority have given ample reason to become sceptical.

Recognizing this regrettable state of affairs and with the objective of taking the country forward in the right direction to meet its needs of becoming a global economic leader by the year 2035, Indian Centre for Social Transformation (Indian CST) was recently formed to improve egovernance through the global project management system. Indian CST truly believes in information technology for social change, says its website. In a first of its kind of project in India, Indian CST recently rolled out a financial management system for the municipality of Bangalore-BBMP (Bruhat Bengaluru Mahanagara Palike) which proposes to deliver services that are scalable, secure and efficient, while improving the overall service and reducing costs.

BBMP with annual Budget of Re.14,000 crore is one of the largest municipalities in the country, with the help of the Indian CST's solution will enable efficient monitoring of the various payments received from the 198 wards in the city under various departments.

For the seamless operation of government departments multiple applications and services need to be addressed and delivered in a scalable, secure and efficient manner. To achieve this, the Indian CST has come up with a Global Project Management Solution (GPMS) as a service for the use of various government agencies. While this 'Software Platform as a service' (SPaS) is done without technically licensing the software, it enables the use of data across projects, to improve efficiency and cost.

Interestingly, the computing environment will be based on the tenants of cloud computing environment where the customers do not own the physical infrastructure and the access and process data on the cloud. Typically here, the capital expenditure is avoided by renting the



BBMP Indian CST usage from a third-party provider where payment is made only to the extent of which the service is used.

Indian CST provides such infrastructure under the GPMS where it can be shared across a set of e-governance applications as well as services rendered to common man. Further, to address the sensitivity of information in various e-governance projects as well as information about citizens, data security will be addressed by CVC (Central Vigilance Commission) and CSIR (Council for Scientific and Industrial Research).

How does GPMS-FMS work?

GPMS essentially addresses the complete life cycle of a project by using the technique of capture, validate, check, measure, analyse, report along with key performance indicators. While it enables organizations to easily monitor their projects, it can also be successfully used for pre and post award analysis of projects besides enabling investigations if any that need to be carried out. While the projects are effectively checked, analysed, measured and reported using relevant indicators, the data gathered is used as a Knowledge Management System which holds vast repository of RFP's (Request for Proposals), tender processes, vendors and their performances, rate as well as technologies available in the market.

The GPMS also stores data on the brief history of the organization, details, tenders, analysis of payment process, tax deduction practices, duplicity, besides also analysing the necessity of a project under consideration. Further, apart from the 360 degree view of the projects under consideration, the employee's and contractor's history is also stored, facilitating a detailed analysis from all angles and when required.

GPMS to help BBMP

As the fifth largest city in the country, Bangalore commands a budget of Re. 14000 crores for carrying out its municipal functions. Interestingly, BBMP Accounts department was un aware, in a real time basis, the quantum of funds received by its 198 wards. After this shocking truth had dawned, BBMP approached Indian CST to implement the GPM-FMS to monitor its fund management in real time.

To meet the specific requirements of BBMP, Indian CST has customized the GPMS cloud computing solution, where it enables the efficient monitoring of the various receipts received or payments done from the respective departments across the 198 wards. Besides providing



BBMP Indian CST

adequate training to the BBMP staff on the use of the GPMS-FMS-BBMP financial management system, site visits were initiated to ascertain its implementation in every zone.

Through the GPMS-FMS-BBMP integrated all the 936 bank of nationalised, private, cooperative bank branches across the city with their departments that span head office, divisions, subdivisions, 198 wards and 450 Offices where each engineer can report revenue collected on a daily basis. This, besides enabling reporting on real time basis, also brings in transparency in the BBMP operations.

GPMS-FMS-BBMP Financial Management System packs in:

- 1. Revenue Monitoring system
- 2. Revenue Receipts data entry sheets
- 3. Generation of Automatic receipts online
- 4. View Receipts online
- 5. Generation of relevant MIS reports

Incidentally, the capturing of this data makes it the single largest information collection system in civil infrastructure project any government body in Karnataka, offering information on payment, collection and deposit into the various bank accounts of the BBMP.

A Palike transformed:

This project has drastically transformed the face of BBMP within its short period of implementation. Besides ushering in a paperless office and clarity of data through the computerized receipts and payments has been a drastic increase in the revenue collections and scrutiny done online and payments released. The revenue collections increased by over Re.1100 crores in the very first few months of its implementation, a pointer to the tremendous advantage of technology facilitated by the GPMS.

The new system also brings in the accountability, with the name, designation and contact details of the receipts issuing person made available. The user friendly system also allows the data to be easily retrievable for further reference, besides enabling authorized persons access the site to view collections online in real time.



BBMP Indian CST

This initiative is a sure step forward in the eradication of corruption and malpractices in the government, lending creditability to its functioning.

Indian CST efforts to make BBMP more transparent and efficient can be a good example how technology can benefit the officials as well as the recipients of the service. Many a time, the egovernance initiatives do not reach or address the common man in the manner it is envisaged, especially in the rural areas. This is particularly so due to the digital divide that exists between the urban and rural masses. The Indian CST aim is to provide e-governance services that are efficient and scalable right from the grass root level such Municipalities and Panchayats. Supporting this will be a portal that will be accessible to people and link them to varied range of project that will offer cost effective computing, knowledge management systems and critical applications at affordable costs. In short, it would ensure that the e-governance reaches and addresses effectively the needs of the common man.

Potential Impact:

Indian CST data center will be able to offer GPMS-e-governance cloud computing solutions to all the central government departments , state government departments in India and across the Globe so that revenues can be generated from across these above GPMS cloud computing solutions verticals with communications management, monitoring and tracking online provided as a service that can be used online by entrepreneurs, business houses, public private partnerships consortium team members, service personnel, intelligence, investigation agencies, state governments, local authorities and allied ministries as their Knowledge Management System too that can be offered as Affordable GPMS Cloud computing services to organizations as paid service.

- 1. Anyone, Anytime and Anywhere access GPMS cloud computing as a service
- 2. Increases transparency and efficiency in Government Departments
- 3. Reduces time and Saves cost



Indian CST's GPMS cloud computing solution features as a service will become the main advantage for any organization to use those who want to bring Transparency in their existing systems: Highly Replicable Model, Potential to replicate this model at various sectors with adjustment to language and structure, across other states in India and across other countries for Data Utilization and Evidence-Based Decision Making.

- 1. **GPMS-Global Project Monitoring System** an end-to-end solution available for any Government organization or department use to manage their projects online to get real time information updates from all their stake holders
- 2. **GPMS- E-File management System** available for any Government department to move files online for giving approvals or rejecting and for any BPO's to digitize data online just by viewing the scanned documents online.
- 3. **GPMS-Investor Relationship Management System** available for any Govt. ministry or department use to manage investors who have proposed to invest in the country, state etc., this helps them monitor, track communications, projects, various stages of Investments, MSME's Schemes and grants, etc.
- 4. GPMS- Online and offline Survey System with Geo tagging available for any Government Project or feedback for conducting Implementation Impact Analysis Studies integrated with Latitude / Longitude captured automatically for technologies, schemes, products, programs surveys undertaken etc., from Hand Held/Mobile Devices Capture Data from Ground; Beneficiary Verification System (Dashboard) hosts all Data and Metrics in a Central Location for dynamic real-time display of information online for public viewing / decision making.
- 5. **GPMS- Task Management System available** for any Government Project monitoring online to use through Mobile devises or phones to assist their task teams by having a wide array of reliable data to focus limited supervision capacity.
- 6. **GPMS- Environment Health Safety System** available for any Government Project monitoring remote sites with Video Surveillance and for monitoring medical reimbursement schemes online of the organization or project related stake holders, employees etc.
- 7. **GPMS-Compliant Management System** available for any Government Project or Citizen charter's use for brining in the public participation in this specific project or view status of complaints online.
- 8. **GPMS- Financial Management System** available for any Government department to Track their incoming all Receipts and outgoing Payments happening in real time along with Bank reconciliation enabled online.



- 9. **GPMS-Financial Document Management System** available for any Government department to scan and upload their vendor bills online, digitize and post to Financial Management system for generating various Tax compliance reports or mismatch tax wise reports etc.
- 10. **GPMS-Public page integrated with Face Book** available for any Government department to display their project status for pubic in their particular location to view, send their feedback, comments, complaints or upload the photos, videos, audio's, documents, etc.
- 11. **GPMS- Stake holder Management System** available for any Government department to validate their company vendors, beneficiaries, organizations employees, NGO's, MSME's, etc. online and update the information in real time to improve governance and accountability, public voice in governance, public pressure, and civil society engagement: Information collected from the field can be made available through public sites to improve transparency on program performance and public voice in governance. Stake Holder teams can access the dashboard through the internet and engage in continuous supervision from their offices
- 12. **GPMS-Family Tree System** available for any Government department or Individual to create or validate their tree information etc.
- 13. **GPMS- Bullion Network System** available for any Intelligence agency or Government department to use enabled to track the stake holder network information related to that particular specific project
- 14. **GPMS-Financial Transaction Tracking System** available for tax department or Investigating agency use for collecting details or evidence required of the particular transaction related to the individuals or organizations
- 15. **GPMS-Vault System** available for any Individual person or any Government department use to validate the repository based on the various integrated GPMS databases.
- 16. **GPMS- Beneficiary Verification System** available for any Government organization department use to improve evidence based decision making by policy-makers; governance and accountability; continuous monitoring of progress towards output / outcome indicators and collection of reliable information from the field
- 17. **GPMS for Municipalities System** available for monitoring infrastructure Projects, GIS System for Road history, Property History, Advertising Hoardings, Health Information history, complaints and grievances history, Revenue and Expenditure history, etc.



- 18. **GPMS for Finance Management System (FMS)** available with Bank Payment Gate way for any Government department to track their General Payments and Receipts and do their bank reconciliation online by monitoring them online.
- 19. **GPMS for Birth and Death Monitoring System** available for any Govt. health department use to track the specific event taking place in the particular location or for monitoring online or for collecting information or reports from various Hospitals, PHC's, Nursing homes, etc.
- 20. GPMS for Educational Reforms System for monitoring students available for any school, college, university or educational institutions etc. especially for introducing the examination reforms into their institutions for managing and monitoring all their examinations related activities online, digitization of their student answer books, then comparing the answer book information with their results declared etc. online (very useful for Preliminary, High school, Pre-University, UG and PG)
- 21. **GPMS** for Health Information Monitoring System Cloud Based solutions available as hospital Information management, monitoring system for their patient/s to view their medical records online through secured access useful for any Govt. hospitals, PHC, country or any state etc.
- 22. **GPMS-Connect** A cloud based video conferencing and surveillance online facility enabled for tracking projects online and for monitoring safety onsite
- 23. **GPMS Survey System** available for Beneficiary monitoring of BPL families along with their social-demographic details for online capturing of information or verification towards delivery of the Govt. funded schemes.
- 24. GPMS for MSME- A cloud based solution available to monitor MSME programs and registrations online, Indian CST consultancy for preparing Business Proposals, Offering Video conferencing facility online, MSME GPMS IRMS customer relationship management system enabled to bring in the awareness and provide affordable computing to bring in the accountability.
- 25. **GPMS-IRMS-CRM** unified data and Information Trans-portal for open governance single Window Unified Communications System for Governance Delivered Anytime, Anywhere, Any devise cloud solutions with GPMS-E-File Management system for any Govt. organization or department for monitoring and recording interactions of all their Citizens charter services, etc.
- 26. **GPMS-Cloud computing available for UID, programs**, Schemes, Govt Fund, CSIR-Products and technologies monitoring services online.



- 27. GPMS e-Governance Facilitation Council Subject Matter Experts available from Indian CST as project management crowd sourcing services online, team compromises of Governance Experts- Retired IAS, IPS, IRS Officials, Bureaucrats, Judicial authorities, Public Sector & like-minded Public Servants etc., Domain Experts- Doctors, Engineers (All major discipline), Auditors, Charted Accountants, Lawyers, Project Management Professionals etc., Information Technology Experts, Specialized in e-Governance, Project Management, Cloud Computing, Mobile, Security Technologies etc., Media, Public relations, Coverage, Case Study, Publications etc. offered as consultancy services under Indian CST.
- 28. **GPMS** enables real time Citizen Engagement & Feedback on outcomes and consequences of actions at each stage of the service delivery chain Connecting Policy Makers, Providers, Beneficiaries and their Voice that Enables Results Agenda, Good Governance and Clients.

For more details or for your requirements contact:

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For more details visit:

www.indiancst.in , www.gpmswiki.org

BBMP Indian CST

FREQUENTLY ASKED QUESTIONS

What is this GPMS or Global Project Monitoring Solution?

Answer: GPMS-Global Project Monitoring System is a new Integrated cloud computing Project Monitoring e-Tool solution with Task Management System for Project Monitoring online through Mobile phone to assist task teams supervision, Online Survey Stem for any Project feedback for conducting Implementation Impact Analysis Studies integrated with Latitude / Longitude captured automatically, from Hand Held/Mobile Devices to Capture Data from Ground, an end-to-end solution for any Government/Private Corporation to manage their project/s online, to get real time information updates from all their stake holders.

Is this Integrated GPMS Platform or Technology on Open Source or Propriety or is License based?

Answer: Indian CST has developed a frame work that is a robust development environment facilitating the developer to build efficient applications by providing numerous built —in functions to perform various operations like data insertion, deletion, updating /modification etc. The framework is based on MVC architecture, and the main objective of MVC architecture based framework is to separate the Business logic and Application Data from Presentation Data to the User. The Indian CST frame work has enhancements in terms of Performance, Scalability incorporating latest Jquery components. The cloud computing applications developed using the Framework is platform independent; is can be easily deployed on LINUX or Windows Operating Systems.

What is NDSAP?

Answer: National Data Sharing and Accessibility Policy-2012 (NDSAP-2012) Department of Science & Technology Ministry of science & Technology Government of India enabled in GPMS....The National Data Sharing and Accessibility Policy will apply to all data and information created, generated, collected and archived using public funds provided by Government of India directly or through authorized agencies by various Ministries / Departments /Organizations / Agencies and Autonomous bodies.

Does GPMS address Performance Monitoring of the employees and the agencies/users especially stakeholders who are facing the performance challenges and in what way is this different form other solutions available?

Answer: Matrix management system, task management system, communication management system, document management system, data validated, annotated, indexed and stored in real-time on the GPMS cloud with secured access from anywhere.

What are the gaps noticed with current Project Management tools or ERP solutions available? In what way GPMS Cloud addresses these gaps and how it will be of benefit to the organizations?

Answer: Most other tools are licensed based, less-user friendly and are costly for more users. The running infrastructure cost is also high and per visit costs for support is too high. Customization is generally not possible in OTS products.

GPMS cloud computing allows the user flexibility to customize the solution to their requirement, add any number of users, empowers project management, monitoring, with knowledge management on secured cloud computing affordable infrastructure and enables evidence capture and transmission from site at very low costs.

Why GPMS Data collection is focused on gathering information at source? What is the necessity to integrate all information and for whose benefit?

Answer: Information is POWER. Information when correlated with other information becomes more meaningful, when information is analyzed using technological tools it can become actionable intelligence. Therefore information has to be collected at source / collated and analyzed to be followed by appropriate actions on real time mode, and the combination empowers the user to wield power at will to enhance his /her position further.

What are the various components of Integrated GPMS e-governance cloud computing solution?

Answer: Collection, Collation, Analysis and Actionable intelligence for action and feedback for loop Convergence of ideas what started as a project 100, GPMS, Cloud computing, crowd sourcing, financial accountability, actionable intelligence, data is converted into information for action, when compliant is converted into actionable intelligence became knowledge.

Answer: GPMS for Project, Program and Portfolio Management e-tool that brings together global best practices to suit local requirements and skill sets with Metrics Management for anyone, anytime and anywhere to access & update information online

Answer: GPMS-Investor Relationship Management, Monitoring Solution to enhance efficiency, transparency and governance in delivery through Single Window Clearance System of approved projects in the line Departments/agencies.

Answer: GPMS-Financial Payments / Receipts Management Monitoring System Integrated with Tally for utilization of public money by government and its various bodies that Increases transparency, accountability and efficiency in Government Departments.

Answer: GPMS-Online Application Forms with Multiple Banks Payment Gate way System Integration for any State Govt. Ministry Departments for data collection, Investment analyses for decision making across Districts in the State

Answer: GPMS-E-File Document Management System Integrated with Digital Signature & Data Security that facilitates conversion of unstructured data to structured data that can facilitate necessary clearances / approvals from the Government Departments / Agencies online

Answer: GPMS Communication Management System -Email, SMS, Mobile Task, Compliant System Integration with Geo Tagging for disseminating information about actual situation on work ground. by allowing them to comment and upload documents to the website for viewing or response by others.

Answer: GPMS- Online Survey System Single view of stakeholders and public inputs integration with multi-media technology (GPS enabled photographs, videos, etc.) evidence based feed backs for Government Departments / Agencies Remedial Actions

Answer: GPMS-Beneficiary, Investor, MSME, Companies, etc. Verification System integrating ADHAAR UID system. Availability of information Public page integrated with Face Book in public domain enhances the transparency considerations

Answer: GPMS-Mapping of Knowledge areas on GPMS Cloud for Cost comparison studies for that facilitates in arranging infrastructure like Land, Water and Power etc. similar works within and across organizations using Crowdsourcing model

How does Indian CST's Integrated GPMS Scores over Competition

'Apple to Orange Comparison' Vs. 'Value Insight Method' of Comparison

Indian CST likes to bring performance in this evaluation process by facilitating to looking for, capturing & comparing with value delivered to beneficiaries involved, rather than using abstract concepts that can't be related and we call this as 'Value Insight Method' of evaluation. This is different from predominant method of comparison called 'Apple to Orange' method of comparison aimed at creating confusion by creating complexities through unrelated or abstract concepts in consumers mind. 'Value Insight Method' tries to help customers the uniform way to understand value delivered by his / her own terms. For example, a customer with lighting requirement for a hall would be facilitated with uniform way of understanding the requirement irrespective of models & manufacturers, instead of talking about wattages that doesn't result in same performance or throughput of luminescence or brightness or shine.

Indian CST likes to facilitate fair evaluation of various solutions available in the market by a neutral, independent agency using 'Value Insight Method' or similar one. We're in the process of advocating reputed agencies involved in this process by applying this kind of method of evaluation that would bring out performance in the total process. In the absence of the same, we've come up with our own comparison as per our perception by staying neutral & fair to the extent possible.

Executive Comparison Report

Category	Class	Feature Group	Microsoft PPM	Oracle	CA Clarity PPM/Niku	SAP	GPMS Platform
Core	Picture,	Establishment, Evolution of the platform centred around Beneficiary	0	0	0	0	5



RRIMIA			Microsoft		CA Clarity		GPMS
Category	Class	Feature Group	PPM	Oracle	PPM/Niku	SAP	Platform
Core		Evolution of Form & Function centered around Beneficiary	0	0	0	0	5
Core	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	Needs & Inclusion of all the	0	0	0	0	4
Core	Integrating Silos to Realize Benefits	Relevant to needs, Expectations & Values Generated to Beneficiary	0	0	0	0	3.5
Core	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	0	0	0	0	4
Core	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	Functional Rich & Bare-bone	0	0	0	0	3.5
Core	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	Values Generated to Beneficiaries	0	0	0	0	4.1666667



Category	Class	Feature Group	Microsoft PPM	Oracle	CA Clarity PPM/Niku	SAP	GPMS Platform
Core	Coverage of Bigger Picture, Integrating Silos to Realize Benefits	Values Generated to Beneficiaries	0	0	0	0	4.1666667
Perinhery I	Values Generated to Implementers	tablishment, Evolution of the atform considering 5 plementers		5	5	5	3.5
Perinhery I	Values Generated to Implementers	Evolution of Form & Function	2	2	2	2	5
Perinhery I	Values Generated to Implementers	Needs & Inclusion of Implementation Groups	5	5	5	5	3.5
Perinhery	Values Generated to Implementers	Templates/Forms/Constructs for Tactical needs to realize expected value	5	5	5	5	2
Periphery	Values Generated to Implementers	Values Generated to Implementers	4.25	4.25	4.25	4.25	3.5
Horizontal	Technology	Ability to replicate the functionality for other beneficiary group	0	0	0	0	4.5
Horizontal	Technology	Scale, Capacity Elasticity by direct means	2	2	2	2	4
Horizontal	Technology	Disaster Recovery & related benefits	2	2	2	2	4



Category	Class	Feature Group	Microsoft PPM	Oracle	CA Clarity PPM/Niku	SAP	GPMS Platform
Horizontal	Technology	Expertise Level (Higher means requirement lesser expertise/specialized knowledge)	2	2	2	2	3.5
Horizontal	Technology	Focus on Infrastructure Vs Business	2	2	2	2	5
Horizontal	Technology	Values Generated to Technology	1.6	1.6	1.6	1.6	4.2
		Recommendation	1.95	1.95	1.95	1.95	3.96

GPMS Detailed Evaluation

Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Shaping up of Project	Research, Discovery, Feedback & Statistical Methods to understand the need	Survey with Geotagging	2	2	2	2	5
Core	Shaping up of Project	Incident (Complaint) Reporting with complete flow	Service Management	5	5	0	5	4.5



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Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Shaping up of Project	Capturing Learning from other projects (completed or In Progress)	Capturing of datasets & using them as inputs*	0	0	0	0	3
Core	Shaping up of Project	Ecosystem of suppliers, service providers, MSMEs, Social research organizations, Selfhelp groups & ecommerce platform	Market Place	0	0	0	0	4
Core	Shaping up of Project	Schemes/Programs available for Budgeting	Schemes/Budgets/ Discretionary Options	0	0	0	0	3.5
Core	Shaping up of Project	Political, Judicial & other complex hierarchies	Master Data	0	0	0	0	4
Core	Shaping up of Project	Citizen Information Sheet from Birth to Death	Master Data	0	0	0	0	3
Core	Shaping up of Project	Entrepreneurship Opportunities available	Master Data	0	0	0	0	4



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Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Shaping up of Project	Geography Information for India to the pincode level	Master Data	0	0	0	0	5
Core	Shaping up of Project	Complex cross- hierarchies of various departments & agencies in government	Master Data	0	0	0	0	3
Core	Shaping up of Project	Vault	Virtual Data Room/Digital Locker	0	0	3	0	4
Core	Shaping up of Project	Contractor Selection	Reverse Auction*	0	0	0	0	3
Core	Shaping up of Project	Contractor Transition	DM*	0	0	3	0	3
Core	Shaping up of Project	Contractor Selection	Low Cost Supplier vs. Low-price Supplier*	0	0	0	0	3



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Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Shaping up of Project	Self-declaration of contractual requirements to take care not to have deviations, expectation mismatches, varied interpretations, negligence, compliance breaches & to ensure acceptance criteria, indemnification, covenant requirements	Survey	2	2	4	2	5
Core	Shaping up of Project	Network of people, Identification of insiders, anti-social elements, enabling bodies/sources in the network	Bullion Network	0	0	0	0	5
Core	Shaping up of Project	Overall Project Catalog	Budgeting Process	5	5	5	5	5
Core	Project Planning	Document workflow for reviewing of drawing etc.	DM	0	0	5	0	4



Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Periphery	Project Planning	Task Management with tracking over mobile	Scheduling activities	3.5	3.5	0	3.5	4
Periphery	Project Planning	Requirement Elicitation	Survey	4	4	4	4	5
Periphery	Project Planning	CPM based scheduling	Scheduling activities	5	5	0	5	3
Periphery	Project Planning	Quality Plan	Quality	0	0	0	0	0
Core	Project Planning	Base lining & Versioning of Project Arte facts	Change Management	5	5	5	5	2
Periphery	Project Planning	Sizing to Effort Estimation	Requirement to Scope to Schedule	2	2	0	2	2
Periphery	Project Planning	Organization/Event s Calendar	Master Data	5	5	0	5	4
Periphery	Project Planning	Resource Leveling in Task assignment	Scheduling activities					



Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Periphery	All Phases		Collaboration Infrastructure	5	4	3	5	4
Periphery	All Phases	Digitization of paper based inflow of documents & collaboration	DM	0	0	4	0	4
Periphery	All Phases	Instrumentation to understand consumer behaviors to help them to better	Analytics	5	5	0	5	5
Periphery	All Phases	Managing of identities, entitlements	Identity Management	5	5	0	5	4
Core	Project Tracking/Moni toring	Project Accounting & Costing - Account Payable & Receivable	Cost Tracking	0	0	0	0	4



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SLOBAL PROJECT MANAGEMENT SYSTEM WITH REMOTE EYE MONITORING SYSTEM

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Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Project Tracking/Moni toring		Inventory Management	0	4	0	0	4
Core	Project Tracking/Moni toring	_	Maintenance Management	0	4	0	0	3
Core	Project Tracking/Moni toring	Functional Constructs to Financial Constructs	Integration with FA/ERP	0	0	0	0	4
Core	Project Tracking/Moni toring	Functional Constructs to Financial Constructs	Tax Evasion	0	0	0	0	5
Core	Project Tracking/Moni toring	Site Monitoring	Real-time Monitoring	0	3	0	0	5
Core	Project Tracking/Moni toring	Safety Performance	EHS	0	3	0	0	4
Core	Project Tracking/Moni toring	aguinmant's*	Real-time Monitoring	0	0	0	0	3



Category	Stage in Project Life Cycle	Specific Feature Live streaming of	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Project Tracking/Moni toring	video & images for Incident	Service Management	0	0	0	0	5
Core	Project Tracking/Moni toring	Giving external people the perception of single entity, common voice & representing beneficiaries	Stakeholders Relationship & Public Participation/CRM	0	0	0	0	4
Periphery	Project Tracking/Moni toring	Payment Gateway	Payment Gateway Integration	0	0	0	0	3
Periphery	Project Tracking/Moni toring	(mail, phone,sms	Stakeholders Relationship & Public Participation/CRM	5	5	0	5	3
Core	Project Tracking/Moni toring	Psychological based Metrics Reporting	Metrics	0	0	0	0	3



Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Periphery	Project Tracking/Moni toring	EVA based metrics Reporting	Metrics	5	5	0	5	0
Core	Project Tracking/Moni toring	Assumptions, Dependencies, Risks & Escalations tracked as Incidents	Risks Tracking	2	2	0	2	4
Core	Project Tracking/Moni toring	Schedule Change Management / Changes tracked as Incidents	Change Management	2	2	0	2	4
Core	Project Tracking/Moni toring	Dependencies tracked as SLO/OLA (Operational Level Agreements)	Risks Tracking	3	3	0	3	2
Core	Project Tracking/Moni toring	Scope Clarifications tracked as Incidents	Risks Tracking	3	3	0	3	4
Core	Project Tracking/Moni toring	Requirements Tracked as feature/change lists in Incident management	Scheduling activities	3	3	0	3	4



Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Project Tracking/Moni toring	Task ownership vs. Task assignment	Scheduling activities	2	2	0	2	5
Periphery	Project Tracking/Moni toring	Milestone based communication	Communication	4	4	4	4	3
Periphery	Project Tracking/Moni toring	Quality Gates Approval process through escalation path handling	Phase-Gate	5	5	5	5	3
Core	Project Transition	Digital e-Learning	e-Learning capabilities	4	4	4	4	5
Periphery	Universality	Globalization (G11N)/Localizatio n(L10N), Internationalization (I18N)	Language Availability	5	5	3	5	4
Core	Project Closure	Closure Feedback	Survey	4	4	4	4	5
Service	Service	Crowd Sourcing (Scaling up to deliver value)	Scaling up to deliver value	0	0	0	0	5



Category	Stage in Project Life Cycle	Specific Feature	Class	Micros oft PPM	Ora cle PP M	Acco nex	CA Clarity PPM/Ni ku	GPMS Platform
Core	Project Tracking/Moni toring	Bare-bone technology Reports vs. Functionally relevant/rich reports	Reporting	3	3	0	3	5
Periphery	Shaping up of Project	Team One World/Global Data across countries & comparative reporting	Master Data	0	0	0	0	3
Core	Project Closure	Shaping up of fact book/knowledge management system	Evolution of the system	0	0	0	0	4
Service	Service	Support Availability	Service	5	5	5	5	4
Service	Service	Service Assurance	Service	5	5	5	5	4
Service	Service	Design of system keeping in public participation in mind with varied skills	User Experience	4	4	4	4	5
			Recommendation	1.93	2.14	1.18	1.93	3.79

Ratings for Detailed Evaluation

- Functional Feature that's not considered part of scope or roadmap of bare-bone product (0)
- Not part of standalone product but available as part of integration (1)
- Feature is not directly available but can be managed as workaround / requires additional development/customization effort (2)
- Functional Feature Yet to evolve with complete workflow (3)
- Feature focused / tuned for functional performance (Functionality is continuously evolving)/Enriched with Master Data (evolving) / Service Assurance at scale (4)
- Feature focused / tuned for functional performance (Stable Feature/Complete functionality is available) / Enriched with Master Data / Service Assurance at Full Scale (5)

Indian CST's Integrated Cloud Computing Solutions Technology Benefits

- We've set simpler means to replication of success to other beneficiary groups, affordability as our primary goal while coming out with technology solutions, building our platform, choosing our building blocks & further evolution.
- We make use of power of crowdsourcing from the beginning to get access to the talent pool and it's another success story we're proud of.
- We make our technology available as subscription based secured service on cloud
- We've built our features list, portfolio of products by keeping beneficiaries, end-users in mind and to drive Transparency, Efficiency & Accountability and so it covers features that's not covered by stereotyped 'Project Management system' offerings.
- We've considered co-working needs of ERP, Portals, Content Management System, Collaboration, Social Media by integrating, providing complementing features to make it a complete solution and as means to bridge information silos & realize end-to-end knowledge.
- We've built validation features of compare manually entered data with scanned manually forms to ensure data integrity
- We've built innovative data models to correlate identity information, building cross-hierarchies of responsibilities for project performance
- You could get started with our solution with almost no lead time & start realizing the benefits immediately based on subscription based 'pay-per usage' model
- We've experimental models to convert unstructured data into structured form to make it available for decision making.
- We're also in the process of building 'Offline Traveller Platform' to provide universal access
- We've powerful reporting subsystem to correlate & generate complex reports that comes from various sources.
- We're building statistics that could empower policy maker to start with right initiatives/projects
 once it reaches certain scale & quality. Our customers have reached a state of using our models
 & vocabulary to conceive projects & their effectiveness.

Application Perspective

- Security Preventing from malware and sql injection
- Smart Search In some modules, search compensate for possible typo errors in the keywords entered by the user.
- Smart data Validation Data validation is done where ever required like integers, email id's, mandatory fields, date fields etc.,

Product Perspective

Application areas –

- Can be used in educational institutions
- o Can be used in health care research, hospitals, PHC's, Citizens health vault etc.
- o Can be used for managing, monitoring Projects in real time
- o Can be used in any respective country citizen networks for citizen empowerment
- o Can be used by Income Tax Department and all Tax departments
- o Can be used as an ecommerce solution to manage all the products and technologies
- Can be used for Task Management to track and monitor schedules of projects
- Can be used for financial management as Tally package has been integrated with GPMS
- Can be used by Organizations etc.,

Data Privacy –

- Respects and observes the laws and regulations regarding data privacy especially the data protection of citizens records, patient's medical history, organizational secrets, etc.
- All entries to GPMS modules where data can be viewed, changed, or deleted require proper access rights.

GPMS Case Studies

As you are aware Indian CST has been in existence since Nov 2009, with the objective of supporting government in improving public governance by employment of e governance tools. Appreciating the necessity of transparency, accountability and timely intervention to improve the quality of public governance, and considering the scale of operations, e governance has been identified as the only reliable mechanism for enhancing effectiveness.

Indian CST GPMS – Case Studies and their Achievements

E-Governance- BBMP 92,000+ Projects, Approx. Rs.14000 cr. Updated online

GPMS BBMP Healthcare - Birth and Death monitoring system implemented in BBMP health department integrating 1800 hospitals, 6 lakhs people information updated online.

GPMS Valsad District, Farida Taluk 207 + Projects of 13th Finance Commission projects updated

GPMS NHAI- 217 National roads and projects along with World Bank funded Rs.20,000 crores project uploaded

GPMS Education- Bangalore University- 24 lakhs Students, 24 Lakhs Answer scripts online, Schools, Colleges integrated

GPMS Citizen Healthcare – 1,26,000 Oncology patients 50 lakhs Plus medical records scanned and data brought online from a 550 Bed hospital, Indo American Cancer Hospital & Research Institute

GPMS Beneficiary Monitoring- IAY Bihar 30 Lakhs BPL people updated online, a World Bank supported project

GPMS Ministry of Minorities Schemes Monitoring – 55,000 + 2010/11 for all India Students beneficiaries monitoring

GPMS-FMS a Real Time Revenue, General receipts, Payments, Monitoring system at BBMP- 327+ R-codes, 936 bank branches, all 450 offices of BBMP departments connected online across Bangalore Re. 7000 crores transactions done online and documented

GPMS GWAS Central India-Sequencing of the Indian Population

BBMP Indian CST

GPMS All 14 Payment Transactions integrated into GPMS for Monitoring of Income Tax department

GPMS India Citizens Network – crosses approx. 1 crore people registered citizens into GPMS

GPMS MSME's Monitoring- 11 Lakhs Minor, Small, Medium, Enterprises details being registered and validated online across India and continuing to update into GPMS

GPMS NGO's Monitoring System for validating registered national and international NGO's 41,000 online and continuing to be updated online into GPMS.

GPMS CSIR-800- Project Management and Monitoring of 800 million beneficiaries monitoring 1800 Schemes of the Govt. of India.

Vigeye GPMS- CWG 2010 – 10,000 projects, Rs. 13000 cr. 1, 50,000 User names given

Vigeye GPMS instances released for all 2700 central government organizations to update Project information online to CVC India currently in use.

GPMS Team one world – 256 Country Instances released for all people connected updating CWG-2010 project information online into Vigeye GPMS.

GPMS Training. Awareness Programs/ workshops conducted for approx. 25,000 people across India

GPMS SIEMENS-Environmental health and safety management a total of 121 Projects updated into GPMS by them

Other Publications and Reports Published

e-Governance Implementation of publicly funded projects/portfolios using Global Project Monitoring System (GPMS) Cloud: Lessons Learnt

 $\frac{http://connection.ebscohost.com/c/articles/89881014/e-governance-implementation-publicly-funded-projects-portfolios-using-global-project-monitoring-system-gpms-cloud-lessons-learnt}$

World Bank Guidance note for Implementing Agencies- Introduction of e-Tools in the Management of Construction Projects

http://www.indiancst.in/?module=main&action=reports