# AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

**NAME OF CATEGORY- 'INNOVATIVE USE OF ICT BY CENTRAL GOVERNMENT PSUs'**

1. **Coverage – Geographical and Demographic** :-

(i) Comprehensiveness of reach of delivery centers

> The **SAMPARK Employee Portal** covers 8000+ employees, working within the organization campus and in the various on-sites, spread across the various parts of the country.
>
> The **SAMPARK PORTAL for Ex-employees** covers 18800+ ex-employees of BHEL-Bhopal, who reside across the various parts of the globe, as its end-user base. The system has been hosted on Internet, hence accessible from anywhere in the world.

(ii) Number of delivery centers

> This Online Initiative caters to 100+ departments of BHEL organization situated at Bhopal. Ex-employees can access the system anytime from anywhere over the internet

(iii) Geographical
(a) National level – Number of State covered

| ALL |
| --- |

(b) State/UT level- Number of District covered

| ALL |
| --- |

(c) District level- Number of Blocks covered

| ALL |
| --- |

Please give specific details:-

> The **SAMPARK EMPLOYEE PORTAL** has been deployed on the Organization's INTRANET, wherein the employees access the PORTAL either through local LAN or via VPN (Virtual Private Network).
>
> The **SAMPARK PORTAL for Ex-employees** has been hosted on Internet, hence accessible from anywhere in the world, by all the ex-employees of the organization.

(iv) Demographic spread (percentage of population covered)

SAMPARK is one of its kinds of one stop, single window, multiple service providing system, **developed totally INHOUSE and possibly one of its kinds in any of the central PSU's**, covering all types of Employees. BHEL Bhopal is probably one of the few Central PSUs in the country, to have developed in-house and implemented a complete Employee Centric Services Portal for all the sections of the employees, covering a number of discrete applications and integrating the data outputs of a number of different databases to arrive at a Comprehensive platform for information sharing.

**This Initiative covers 100% population as it caters to all the employees of the organization, both on roll and ex-employees.**

2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project):

**This is one of its kinds of system in the entire organization and possibly in any of the Central PSUs**.

Before the Initiative, there was no Online Employee Centric Services available. Employees had to fill Physical/Hard Copy Forms for Entitlements, Reimbursements, Perquisites and Claims such as Telephone & Mobile Bills, Courtesy, Furniture and Furnishing Reimbursements etc. and for various other services such as Tour Advances, Income tax, Direct IT savings Visitor Passes, Quarter Complaints etc.

These Manual entries would result in enormous amount of erroneous data given by employees, as there were no checks, validations and alerts. This resulted in huge work load for the HR and Finance departments, Redundancy of data and Non Transparency in delivery of employee centric services. Also as the whole process of providing services was manual, the Turnaround time in receipt, processing and approval was huge, due which employees were

dissatisfied and discontented.

This is one of its kinds of system in the entire organization and possibly in any of the Central PSUs. There was no online system available prior to this& employee had to personally contact the concerned person/department for his/her queries or concerns.

Three other challenges were:

- We had no idea regarding where to start the project, as till date, no unit in BHEL had developed this type of a Project and hence we could not rely on any knowledge base.

- Project was to be started from scratch and Information regarding various Processes & Services to be computerized and made Online, was to be derived from various departments & sections such as HR, Payroll, Leave, TALTC, Conveyance, Township, Provident Fund etc.

- Implementation of the Project in the various departments factory wide was also a difficult task as managers and workers until then for years were used to Paper based systems and suddenly shifting to Paperless based computerized Online system for performing their day to day employee centric needs would require drastically changing their mindsets and convincing them about the advantages.

Also Ex-employees were feeling alienated, after retiring from BHEL, as they did not have any medium and single point contact to express their views, concerns and raise their queries.

Apart from the interactive portal, it also caters the newly introduced BHEL Employee Pension Scheme. It includes data compilation from various sources like Finance, HR, hospital etc., calculation of Pension corpus for individuals

based on multiple factors and pension form generation as per BHEL Corporate format. BHEL Bhopal was one of the first units in BHEL organization to complete this entire activity in shortest possible time and pension is being disbursed through this system, smoothly and efficiently to all past ex-employees and to employees who retire from time to time every month.

The main challenge was to minimize multiple interaction points for the employees and hence reduce the wastage of their valuable and productive time and provide a hassle free single point one stop solution for On-Roll and Ex-employees for all their Employee centric services..

3. **Scope of Services/ Activities Covered** (Relevance of choice of application for clients/ PSU, extent of e-enablement in terms of number of processes/services, extent to which step in each service/process have been ICT- enabled #)

The Project offers 100% end-to-end Online solution and integrates the entire gamut of the Workflow like

- Submission of Online Applications/Requests

- Forwarding and Approval of the Applications/Requests for various types of Reimbursements, Entitlements, and Benefits

- Acknowledgement of Receipt of Requests

- Tracking and Monitoring of status of Applications/Requests

- Approval of the Applications/Requests

- Notifications regarding Status of Requests through Emails and SMS

- Auto SMS and email reminders for pending actions

For On-Roll employees, SAMPARK employee portal, covers all employee centric services related to REIMBURSEMENTS, PERQUISITES, ADVANCES, ENTITLEMENTS, CLAIMS and REQUESTS. All employee services have been e-enablement, with no manual intervention whatsoever from any department or agency. The services have proper e-Workflows, wherein the Applications flow through various levels for forwarding, before reaching the final department

for Processing and Approval. Email Notifications are sent back to the employee who has generated the service request to intimate him/her of the status of request. Some of the services covered are listed below :

- Telephone Bill Reimbursement
- Mobile Bill Reimbursement
- Courtesy Reimbursement
- Furniture Reimbursement
- Furnishing Reimbursement
- Income tax Statements
- IT Savings
- Visitor Pass requests
- Tour Advances
- Tour Claims
- Township Quarter Complaints
- Salary sheets
- Payslips
- Vehicle Requisitions
- Provident Fund Statements
- LTC claims
- Cafeteria
- Others

For Retired Employees, the main objective of SAMPARK PORTAL system is interaction of ex-employees with BHEL & among themselves with the use of IT/internet. This system is one of its kinds of initiatives in the whole BHEL organization, wherein an effort has been made to address to the requirements of a very important stakeholder i.e. the ex-employees.

It's a whole bouquet of useful features such as Employees search, Birthday calendar and useful links such as Batch-wise list of BHEL Joiners', Circulars related to Ex-employees, Hospital OPD schedule, Recreation and other Useful sites. Moreover, it also helps personnel department to keep track of all the queries, complaints & requests of ex-employees for better monitoring &

resolution.

The data in SAMPARK PORTAL has been consolidated from various sources like Finance, HR, hospital etc. Data mainly contains:

- Personal details (Name, DOB, Correspondence data etc.)

- Service details (DOJ, Service years/Months/Days etc.)

- Finance details (Last salary, DOJ Gratuity, Joining Category/Grade etc.)

- Hospital details (Membership status – Self/Spouse)

- Communication details

The main objectives of the SAMPARK Employee Pension system are:

- Provide various details regarding employees who are covered / eligible for BHEL Employee Pension Scheme.

- Consolidate all the employee data from various sources at one location

- Calculate the Pension CORPUS based on various factors in Last salary, service years, leave deduction etc.

- Generation of Pension forms (pdf format)

The main system module retrieves all the details pertaining to a particular employee.

The reporting module of Pension system aids to

- ✓ Generate various reports for HR, PAY and WAGE

- ✓ Generate Pension forms as per BHEL Corporate format

## 4.  Strategy Adopted

(i) The details of base line study done,

Firstly it was identified that the needs of the On-Roll and Ex-employees were different. . It was identified that the Needs of the On-Roll and Ex-employees were totally different and that the Standardization of various processes related to delivering Employee centric services was required.

On-Roll employees needed an 24X7, Online, single window, one stop solution to meet all their day to day needs of Filling forms & requests for various types of Reimbursements, Perquisites, Claims, Advances, and Bookings.

It was also analyzed, as to what were the requirements of Ex-employees, once they retire from the BHEL. It was understood that the absence of any interface / medium for communication with the BHEL management and amongst themselves, was the major cause for alienation and disgruntlement of ex-employees.

Thirdly after the Employees Pension Scheme was introduced in BHEL, it was felt that a separate module of SAMPARK had to be introduced for smooth and efficient disbursement of Pension. It was very tedious task to compile diverse of data of BHEL Ex-employees for Pension disbursement. The main problem was to compile ex-employees related data from various agencies like HR, Finance, Communication, and Hospital etc as final pension corpus calculation was completely based on this.

(ii) Problems identified,

Following Major Problems were identified

- ➢ No Knowledge base was readily available
- ➢ There were Non-Standard practices in delivering the various Employee centric services.
- ➢ Lack of Involvement of Higher management
- ➢ Integration of many departments and processes was required
- ➢ Factory wide Implementation catering to all levels of Employees
- ➢ Change Management, Communication and Trainings
- ➢ Employee resistance was also a major problem identified
- ➢ Drastic change in mindsets and convincing of employees was required, as employees were not that computer savvy and till date had never used online services to fill and submit services requests.

(iii) Roll out/implementation model,

THREE modules of SAMPARK, employee centric services portal were introduced, as the employee coverage was different.

As Ex-employees, are residing all over the globe, a SAMPARK PORTAL was developed and launched on INTERNET through the Organization's website.

For On-Roll employees, working within the organization campus and in the various on-sites, spread across the various parts of the country, to meet to the requirements of Information security, a SAMPARK EMPLOYEE PORTAL, was developed and launched on the Organization's INTRANET, wherein the employees access the PORTAL either through local LAN or via VPN (Virtual Private Network).

For smooth disbursement of PENSION, a separate SAMPARK EMPLOYEE PENSION system was developed and launched for Ex-employees eligible for Pension.

Workflows for the various services covered in the whole SAMPARK gamut, were identified and separate e-Workflow based Online systems were developed for each service and then all these services where unified through a SINGLE SIGN ON.

(iv) Communication and dissemination strategy and approach used.):

For rollout of the Initiative, we have given wide spread publicity through various newspapers & meetings. During the system inauguration, which was done by BHEL's Director (HR), a demonstration was also organized to all the Retired employees of BHEL Bhopal's oldest batch of executives, namely 1st& 2nd batch. The developed system was highly appreciated by these executives. Also wide publicity was given to all On-roll employees though company email and via the Intranet/LAN.

5. **Technology Platform used-**
    **(i)**    Description,

> The entire Initiative has been developed using JSP (JAVA SERVER PAGES), HTML, JAVASCRIPT, Oracle Developer 10g Forms and Reports as frontend and for User Interfaces, Programming has been done in PL/SQL for capturing Employee data from various sources& ORACLE as database. Also automatic SMS & mail generation has been included at various levels of the e-workflow
>
> **Front End**
>
> - JSP (JAVA SERVER PAGES)
> - JQuery
> - EJBs
> - Servlets
> - HTML
> - JAVASCIPT
> - Oracle Forms and Reports
>
> **Database**
>
> - Oracle 11g (Latest version of Oracle database)
>
> **Hardware**
>
>     High-End IBM P780 Servers

    **(ii)** Interoperability

> At present, the Portal has been deployed in IBM (model P780) server, which has Linux 6.1 operating system installed in it.
>
> As the whole Initiative is developed using portable Java components, which are loosely coupled in such a way that the whole application can easily be deployed in Application servers using other Operation systems like Windows and Unix. The entire project is independent of underlying Operating System & application server. In case of any

version upgrade of OS/Application server/DB server, the system will work without any issues.

Interoperability in terms of data exchange with other system has been done seamlessly. The master data used in the project is directly linked with the master tables of FINANCE/HR. No duplicity of data is allowed.

**(iii)** Security concerns

Care has been taken to ensure that there are no security breaches in the Initiative. The whole Initiative is based on the SINGLE SIGN ON concept. Wherein the employee accesses all the employee centric services by logging only once into the initiative using his/her Staff number and a password, which a random number generated by the system. This password can be changed by employee as and when required.

The whole initiative has been tested using PAROS tool, which is based on Open Web Application Security Project (OWASP) guidelines.

World class latest servers of IBM (model P780), with data redundancy and real time data mirroring have been used to deploy the Initiative. All data generated related to various services is also backed up and replicated in real time basis onto the servers located in the Organization's Disaster Recovery (DR) site. This procedure ensures there is no data loss in case of any mishap in the main server location. This is a World class practice in all World class organizations. This also ensures 24x7 availability of the Initiative.

The Initiative has been secured using single sign-on and user session management to restrict the unauthorized access. The data is being stored in clustered environment using Disaster recovery mechanisms like data mirroring, which ensures high-availability of data. The data is being backed up on daily, Monthly and yearly basis which eliminates

the chances of data loss.

Penetration & vulnerability Testing has been done for the Initiative independently by an External Agency. This has given confidence that the Portal is completely secure from external Threats and attacks.

**(iv)** Any issue with the technology used

NONE

**(v)** Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

There are 2 types of Service level Agreements

First is with various vendors, from whom the organization has procured the Application and Database servers.

In case of any major issue, which is rated as Category 1, the downtime that can be taken by the vendor is 1 hour. In case of any medium sized issue, which is rated as Category 2, the downtime that can be taken by the vendor is 1/ 2 day and In case of any minor issues, which are rated as Category 3, the downtime that can be taken by the vendor is 1 day.

Second is with our management. As we are a ISO 9001 certified department, we have our own Key Performance Indicators as listed below :-

| | | | |
|---|---|---|---|
| a. | First Time OK | - | 95 % |
| b. | On Time Delivery | - | 90 % |
| c. | Resolution Time | - | 80 % ( Less than Half Day ) |
| d. | Customer Satisfaction - | | 90 % ( Most Satisfied ) |

The uptime / availability to be maintained as per SLA : 99%

6.      **Enhancement of Productivity** (Give details about impact on volume of transactions handled per employee, Productivity of machines/ resources#)

The **SAMPARK EMPLOYEE PORTAL for On-Roll employees** hosts more

than **30+ Services** for **8000+ employees, working across the length and breadth of the country**, and caters to **100+ departments** and **records more than 2,0 lakh transactions on a year to year basis**. This makes it to approximately 20 transactions processed per employee.

Earlier Ex-employees used to give their requests over phone or in writing which was very difficult to track. Now they can raise their concern / issues online through **SAMPARK PORTAL**, which will also help BHEL HR & FINANCE department to easily provide solution, track the request & generate reports for the top management. The **target audience of the developed system are 18800+ , ex-employees who are residing across the various parts of the globe**

The process is entirely changed which has resulted in man hours saving & increase in productivity of employees.

The total turnaround time of users' requests has reduced drastically and Total Transparency is ensured in all Employee centric service requests.

In the **SAMPARK EMPLOYEE PENSION SYSTEM** all data has already been compiled from backend & available on single screen for admins to validate the same. In case of any change the other related fields are getting updated automatically from the system.

**Around 3000+ employees, residing in various parts of the country, have received pension after filling all the formalities through this system.** The**target audience for this system increases every month, as around 40 employees of various cadres and grades**, retire from BHEL, Bhopal.

SAMPARK is one stop employee centric electronic solution offering Multiple services, for all kinds of Information, Reimbursements, Entitlements and Benefits in the company.

    a. Bringing in transparency
    b. Reduction in the cost

c. Improving efficiency
d. Reduction in Workloads
e. Offering Controls , Checks, Alerts and Validations

7. **Efficiency Enhancement** (Give specific details about the following #)
   **(i)** Volume of transactions processed

The **SAMPARK EMPLOYEE PORTAL for On-Roll employees** hosts more than **30+ Services** for **8000+ employees, working across the length and breadth of the country**, and caters to **100+ departments** and **records more than 2.0 lakh transactions on a year to year basis**.

**(ii)** Coping with transaction volume growth

As per organization policy we move the old transactions / data from live database server into archive / tapes. We follow the retention of data/log policy to reduce the size of live server & maintain the server performance.

**(iii)** Time taken to process transactions,

The SAMPARK project part for On roll employees includes Submission on Online Applications/Requests for various types of Reimbursements, Entitlements, and Benefits, Acknowledgement of receipt, Tracking & Monitoring of status of Applications/Requests and Approval of the Applications/Requests by the relevant agencies.

**Earlier it used a consume lot of time as data was scattered at multiple places. One replying one query it used to take more than 1 day as dependency was there from other departments/sections. Now all the important data is available at a single place & data have been scrutinized. Overall efficiency of employees has increased too many folds**. Moreover number of queries has been reduced drastically as important data is readily available online.

**Overall accuracy in Pension disbursement through the developed system is 100%.** As all the required Data from various sources is accumulated and consolidated at one place, **It hardly takes 5 minutes to process 1 Pension application of ex-employee**. Also as correct Pension corpus is automatically calculated by the system, based on the Personal and Finance details of the ex-employee, **there is NO DELAY in the whole process**.

**(iv)** Accuracy of output,

This initiative has helped in Real time Approval of all types of services requests received from employees by relevant agencies. **This has enabled "Zero Query", "100% accuracy", "100% On-time delivery of services" and "Zero Visit to Office" and Total Transparency in all Employee centric service requests and processing**

The developed Initiative has helped reduce cycle time in processing and approval of employee centric services drastically, create a paperless office & enhance employee satisfaction.

**(v)** Number of delays in service delivery

With the development of this Initiative, **there is NO DELAY** in the delivery of Employee centric service requests for both On roll and Ex employees.

8. **Service Delivery – Business/ Client Centricity** (Give details about improvement in interaction with clients and outcome for clients, relevance of access points, Length and Breadth of services provided online etc. #)

**SAMPARK is a hassle free, one stop , 24x7, Single window, Multi services centric portal** , covering all sections of employees in BHEL, Bhopal. All services are available Online 24X7. This has helped all employees, even those who are in Second shift (factory timings: 4 pm to 1 am) and Third Shift (factory timings: 1 am to 7 am) to file service requests.

With the development of this Initiative, the satisfaction and motivation levels of

On-Roll employees has increased manifolds, as there is no delay in any service request raised by employees.

This initiative has brought the BHEL administration closer to all the sections of the employees. It has provided a single, efficient information dissemination system to the employee for availing all employee centric services by minimizing multiple interaction points for the employee and hence reducing the wastage of valuable time. The Initiative has also provided for better turnaround time in receipt, processing and issue of services and has ensured Total Transparency in all Employee service requests.

The SAMPARK EMPLOYEE PORTAL for On-Roll employeescovers8000+ employees, working across the length and breadth of the country, and caters to 100+ departments. The Portal has been deployed on the Organization's INTRANET, wherein the employees access the PORTAL either through local LAN or via VPN (Virtual Private Network).

Some of the services covered ONLINE in this part of SAMPARK are listed below :

- Telephone Bill Reimbursements
- Mobile Bill Reimbursements
- Courtesy Reimbursements
- Furniture Reimbursements
- Furnishing Reimbursements
- Income tax Statements
- IT Savings
- Visitor Pass requests
- Tour Advances
- Tour Claims
- Township Quarter Complaints
- Salary sheets
- Payslips
- Vehicle Requisitions
- Provident Fund Statements
- LTC claims
- Cafeteria

- Others

Ex-employees always have been an important stakeholder to BHEL. This was a new initiative taken in order to provide them an online platform so that they don't have to come physically to BHEL for their queries. The initiative was well appreciated by the end-users & the number of queries has also reduced which has reduced the load on our HR & FINANCE admins as well.

The SAMPARK pension system has reduced the pain of calculating the pension CORPUS manually and avoided all the possible human errors.

The SAMPARK Portal covers all the Ex-employees (18800+) of BHEL-Bhopal, who reside across the various parts of the globe, as its end-user base. The system has been hosted on Internet, hence accessible from anywhere in the world. It also include admin area for HR & FINANCE department to view & reply to queries raised by ex-employees

The SAMPARK Pension system is useful for FINANCE & HR department of BHEL-Bhopal for Pension disbursement of Ex-employees. Around 3000+ employees, residing in various parts of the country, have received pension after filling all the formalities through this system.

The SAMPARK system & Pension disbursement system for ex-employees comprises of below ONLINE modules

   I.   For End-Users – EX-EMPLOYEES
- Pension related information
- Personal Information
- Hospital related information
- Raise queries
- Experience sharing FORUN
- Birthday Wishes
- Employee SEARCH
- Circular / News
- Important Links
- BHEL – BHOPAL related information
- Our EDs

- BATCHWISE List of ETs

II. For ADMINs
- Login using Employee Portal credentials
- To view the answered queries &
- Reply the unanswered queries
- Pension Details on Screen (VIEW / EDIT) with Locking & unlocking feature
- Pension Form Generation Module
- Various Reports for HR and FINANCE departments

The portal is hosted on BHEL-BHOPAL internet site & is accessible anytime from anywhere.

**9. Citizen/ Client Centricity** (Give specific details on the following#)
(i) Impact on effort, time and cost incurred by user,

This initiative has resulted in more transparent and hassle free process, elimination of manual and redundant processes, and reduction in the effort and time spent to fetch necessary information. The manual system has been discontinued.

Before the initiative, Employees would fill Physical/Hardcopy forms of various Employee related services, which would result in enormous amount of erroneous data given by employees, as there were no checks, validations and alerts. This resulted in huge work load for the HR and Finance departments, Redundancy of data and Non Transparency in delivery of employee centric services. Also as the whole process of providing services was manual, the Turnaround time in receipt, processing and approval was huge, due which employees were dissatisfied and discontented.

The developed Initiative has helped reduce cycle time in processing and approval of employee centric services drastically, **create a paperless office & enhance employee satisfaction.**

This initiative has helped in Real time Approval of all types of services requests received from employees by relevant agencies.

This has enabled

- Zero Query

- 100% accuracy

- 100% On-time delivery of services

- 99.99% Availability of Services

- Zero Data loss

- Zero Visit to Office

- Total Transparency in all Employee centric service requests and processing.

- Reduction in the turnaround time of user's requests

- The users gets their claims, eligibility and other details on a single click

- The initiative has aided in avoiding duplicity and repetition

It has brought all employee centric services to the desktops of employees.

The Project is a unique Corporate Social Responsibility (CSR) initiative for ex-employees.

Earlier Ex-employees used to give their requests over phone or in writing which was very difficult to track. Now they can raise their concern / issues online through the PORTAL, which also helps HR and FINANCE departments to easily provide solution, track the request and generate reports for the top management.

(ii) Feedback/grievance redressal mechanism,

The initiative has an online platform, wherein employees can raise their concerns / queries & get response within short span of time, regarding issues related to any service request.

This online feedback/grievance redressal mechanism also has an admin area

for HR & FINANCE department to view & reply to queries raised by employees.

Moreover, it also helps personnel department to keep track of all the queries, complaints & requests of ex-employees for better monitoring & resolution.

(iii) Audit Trails,

At every stage of the e-Workflows in the Portal, as and when an employee logs into the system, the PC's IP address, PC's User name, the staff number of the user and the date and time are recorded along with the transaction, in the database. This maintains Audit trails for future references and for security audit purposes.

Every transaction / action is being stored with Date, Time and User Name. This creates Audit Trails and enables the concerned departments to keep a track of user database.

(iv) Interactive platform for service delivery,

The Initiative has a lot of checks, validations and alerts at each and every step, which ensure that the employee is able to correctly enter his/her service requests. A user friendly manual has been provided in the Portal, which aids the employees in using the Initiative to submit their employee centric service requests. An application status tracking module has been made available in each service request dashboard, which helps employees to know the correct status of their requests. SMS and email notifications at each status change also inform the employees, regarding the position of their submitted requests

(v) Stakeholder consultation

Regular surveys and opinion polls are conducted in the organization, in which questionnaire related to employee portal are published and opinions of employees are sought. Based on the feedback of the employees, who the stakeholders, improvements and modifications in the Employee centric Initiative are done.

10. **User convenience** (Give specific details about the followings #)

# AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

**(i)** Service delivery channels (Web, email, SMS etc.)

The Web based **SAMPARK EMPLOYEE PORTAL** for On-Roll employees is deployed on the Organization's INTRANET, wherein the employees access the PORTAL either through local LAN or via VPN (Virtual Private Network). All services are available Online 24X7. This has helped all employees, even those who are in Second shift ( factory timings : 4 pm to 1 am) and Third Shift ( factory timings : 1 am to 7 am) to file service requests.

The Web based **SAMPARK PORTAL for Ex-employees** has been hosted on Internet at BHEL's website and hence accessible from anywhere in the world.

Automatic SMS and Email Notifications is also one of the best features of the Portal, which has been integrated with the entire system so that end-users / admins gets SMS/mail at each and every status change.

**(ii)** Completeness of information provided to the users,

The Initiative has a lot of checks, validations and alerts at each and every step, which ensure that the employee is able to correctly enter his/her service requests. This ensures the exactness and completeness of information fed by the employees and no erroneous data is generated.

This has drastically reduced work load for the HR and Finance departments, and has ensured 100% Transparency in delivery of employee centric services.

The total turnaround time of users' requests has reduced drastically and Total Transparency is ensured in all Employee centric service requests, due to which the employees are satisfied and motivated.

**(iii)** Accessibility (Time Window),

As the Initiative is Web based, It is accessible 24x7, Anytime. All services are available Online 24X7. This has helped all employees, even those who are in Second shift (factory timings: 4 pm to 1 am) and Third Shift (factory timings: 1 am to 7 am) to file service requests.

**(iv)** Distance  required to travel to Access Points

As the Initiative is Web based, the employees can easily submit employee centric service requests, from the convenience of their desks, by using their individuals PCs

**(v)** Facility for online/offline download and online submission of forms,

As the Initiative is Web based, the employees can submit online employee centric service requests related to Claims, Reimbursements, Perquisites, Benefits, Complaints etc.

**(vi)**     status tracking

An application status tracking module has been made available in each service request dashboard, which helps employees to know the correct status of their requests. SMS and email notifications at each status change also inform the employees, regarding the position of their submitted requests.

11.     **Innovation** (Give details on how the usage of technology is exemplary, any use of new and emerging technology, impact on number of steps required, identification and removal of bottlenecks/ Irrelevant steps etc. #)

We have used the finest Technology, world class servers to host the initiative, best Programming languages and Database available in the IT world. The entire system has been developed using JSP (JAVA SERVER PAGES), HTML, JAVASCIPT, Oracle Developer 11g Forms and Reports as frontend and for User Interfaces, Programming has been done in PL/SQL for capturing Employee data from various sources & ORACLE 11g (latest version of ORACLE) as database.

JQUERY, AJAX based java tool, a new and innovative technology has been used in a number modules in the Initiative. It calls another JSP/PROGRAM on the fly and is used to retrieve information in the same page.

The Initiative has been hosted in High End servers of IBM (model P780) with Open source Operating system - Redhat Linux 6.1 installed in it.

World class latest servers of IBM (model P780), with data redundancy and real time data mirroring have been used to deploy the Initiative. All data generated

related to various services is also backed up and replicated in real time basis onto the servers located in the Organization's Disaster Recovery (DR) site. This procedure ensures there is no data loss in case of any mishap in the main server location. This is a World class practice in all World class organizations. This also ensures 24x7 availability of the Initiative. The data is also being backed up on daily, monthly and yearly basis which eliminates the chances of any data loss.

All the Modules of the Initiative have inbuilt automated e-WORKFLOWS, which ensure, that the service request is automatically directed to the concerned person for his/her approval and in this way the service request finally reaches the concerned department. Service request statuses are available at each and every module of the initiative. The e-WORKFLOWS inbuilt in every service offered have reduced redundant steps, which were there during the manual process and hence enabled Business process re-engineering.

SAMPARK Employee Portal is based on the latest technology of SINGLE SIGN ON, wherein on entering the required Login and Password once, Employee has access to an host of employee centric services. This ensures role based access to various stakeholders of the Initiative.

We have tried to minimize no of clicks for the end-user to get any information.

Automatic mail generation and Notifications is also one of the best features which has been integrated with entire system so that end-users / admins gets mail at each and every status change.

In SAMPARK PORTAL for ex-employees, TABS have been used for QUERIES & FORUM section to make navigation very easy for end-users.

In the Pension system, all the important information is available on the single screen. Fields are editable (other than master data) wherever user inputs are required. Pension CORPUS is recalculated automatically in case of any

change in the data. Lock facility is given which restricts data changes after the record verification by HR & FINANCE.

Integration with E-mail & SMS, ensure that the employees stay informed about the status of their submitted services requests.

**Online Knowledge and Information sharing FORUM for ex-employees on the lines of Facebook is also an innovative feature of the SAMPARK Portal.**

12. **Defined and Achieved outcomes** (Give details about extent of improvement in terms of organizational objectives, output targeted in the beginning of the project and output achieved, extent to which the project is able to reach/ fulfill the requirements of planned beneficiaries etc. #)

The SAMPARK EMPLOYEE PORTAL for On-Roll Employees of the organization, has been fully been able to improve the following defined organizational objectives:

- Bringing the BHEL administration closer to all the sections of the employees.
- Provide a single, efficient information dissemination system to the employees for availing employee centric services by minimizing multiple interaction points for the employee and hence reduce the wastage of valuable time
- Provide for better turnaround time in receipt, processing and issue of services
- Provide information services in a comfortable environment and make availing of the information services a pleasant experience.

The SAMPARK EMPLOYEE PORTAL for On-Roll Employees, has been a huge success, which can be gauged from the fact that, within 2 years of its implementation, it covers more than 30+ Services for 8000+ employees,

working across the length and breadth of the country, and caters to 100+ departments and **records more than 2.0 lakh transactions on a year to year basis.**

The SAMPARK PORTAL for Ex-employees fulfills the CSR (Corporate Social Responsibility) objective, which is one of the key objectives of the organization. Earlier there was no proper medium through which Ex-employees can connect with BHEL & among themselves. In the beginning, our aim was to provide ex-employee related information online so that all can view their respective data & send corrections request in case any. But as we progressed, we thought of making it more interactive, so we introduced online query submission &online FORUM for ex-employees where they can share their experiences with their colleagues.

This has been designed and developed in such a way that, it is very convenient for any ex-employee of BHEL, to log in into the system, and get all the desired information related to the following:

a. Pension related information
b. Personal Information
c. Hospital related information
d. Raise queries
e. Experience sharing FORUN
f. Birthday Wishes
g. Employee SEARCH
h. Circular / News
i. Important Links
j. BHEL – BHOPAL related information
k. And others

The SAMPARK Employee Pension system has fully been able to meet the requirements of all the Ex-employees. 100% Pension Applications are being processed through this system, with no manual intervention.

13. **Sustainability** (Give details about sustainability w.r.t. technology (technology used, user privacy, security of information shared- Digital Signature/ Encryption etc. #), Organization (hiring trained staff, training etc#), financial (Scope for revenue generation etc. #)

The entire Initiative has been developed using the finest Technology, world class servers to host the initiative, best Programming languages and Database available in the IT world. The entire system has been developed using JSP (JAVA SERVER PAGES), HTML, JAVASCIPT, Oracle Developer 11g Forms and Reports as frontend and for User Interfaces, Programming has been done in PL/SQL for capturing Employee data from various sources & ORACLE 11g (latest version of ORACLE) as database, which is the most secure database in the world. The server, on which system is hosted, is located in BHEL Bhopal Datacenter & protected using Firewalls.

World class latest servers of IBM (model P780), with data redundancy and real time data mirroring have been used to deploy the Initiative. All data generated related to various services is also backed up and replicated in real time basis onto the servers located in the Organization's Disaster Recovery (DR) site. This procedure ensures there is no data loss in case of any mishap in the main server location. This is a World class practice in all World class organizations. This also ensures 24x7 availability of the Initiative.

The Modules in the initiative are so user friendly, that no training has been required across all sections of the employees and they are easily able to raise any type of service request.

SAMPARK Employee Portal is based on the latest technology of SINGLE SIGN ON, wherein on entering the required Login and Password once, Employee has access to an host of employee centric services.

The various development Tools used are:

* Oracle PL/SQL programming
* JSP (JAVA SERVER PAGES) programming

- JQuery
- HTML
- Javascript
- Oracle Forms
- Oracle Reports

The details of Technology used in the development of the Project are listed below:

- User interface for SAMAPRK Portal for all employees has been developed using JSP, HTML and JAVASCRIPT.
- User interface for SAMPARK Pension Module has been developed using Oracle Forms
- Backend data compilation & report generation has been done using Oracle PL/SQL Programming
- Pension forms generation (in PDF format) has been done using Oracle Reports

Complete confidentiality is maintained and the system is totally secure as, Employees need to create their separate login and passwords after giving their staff number and date of birth, which is then checked from database and validated, and then only the employee gets access to all the information.

For Pension disbursement system also, separate Administrator logins have been created and only the concerned persons access the Module, using their credentials.

No trained staff is required for operation of the Portal as the Initiative is self-driven and has been developed 100% error free with the best available technologies. All services are available Online 24X7 in the Portal without any Manual intervention. This has helped all employees, even those who are in Second shift ( factory timings : 4 pm to 1 am) and Third Shift ( factory timings : 1 am to 7 am) to file service requests.

Only trained staff is required for Maintenance of the Initiative, for doing the Improvements and Modifications as per the requirements of the users. The Initiative has a full-fledged Online Tutorial, which aids the new users in understanding the facilities available and how to fill the various service

requests.

All employee services are e-enabled, with no manual intervention whatsoever from any department or agency. The services have proper e-Workflows, wherein the Applications flow through various levels for forwarding, before reaching the final department for Processing and Approval.

The Initiative has also been rolled to other sister units of BHEL, such as BHEL Jhansi, BHEL Jagdispur, and BHEL EMRP-Mumbai.

14. **Adaptability Analysis**
   **(i)** Measures to ensure adaptability and scalability

   The developed Portal is totally adaptable to future requirements of including more service requests within the gamut of the Initiative. Scalability and adaptability has been ensured, as majority of Modules of the Portal are developed using portable JAVA Components, which are loosely coupled and can easily be reused to develop any number of additional service request applications. This simplifies the testing, maintenance and troubleshooting procedures.

   Also there is no constraint on the number of concurrent users who can logon to the Portal and submit service requests, which makes the Initiative highly scalable.

   **(ii)** Measures to ensure replicability

   The Initiative has replicated with minor modifications and rolled to other sister units of BHEL, such as BHEL Jhansi, BHEL Jagdispur, and BHEL EMRP-Mumbai

   **(iii)** Restrictions, if any, in replication and or scalability

   NONE

   **(iv)** Risk Analysis

   The whole initiative has been tested for risk from outside threats, using

PAROS tool, which is based on OWASP (Open Web Application Security Project ) standards.

The Vulnerability Assessment & penetration testing have been performed by an independent External agency, that eliminate the chances of attacks from outside threats.

15.     Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit,  Change  in legal system, rules and regulations

Before the Initiative, there was no Online Employee Centric Services available. Employees had to fill Physical/Hard Copy Forms for Entitlements, Reimbursements, Perquisites and Claims such as Telephone & Mobile Bills, Courtesy, Furniture and Furnishing Reimbursements etc. and for various other services such as Tour Advances, Income tax, Direct IT savings Visitor Passes, Quarter Complaints etc.

These Manual entries would result in enormous amount of erroneous data given by employees, as there were no checks, validations and alerts. This resulted in huge work load for the HR and Finance departments, Redundancy of data and Non Transparency in delivery of employee centric services. Also as the whole process of providing services was manual, the Turnaround time in receipt, processing and approval was huge, due which employees were dissatisfied and discontented.

This initiative, after its implementation has helped in Real time Approval of all types of services requests received from employees by relevant agencies. This has enabled "Zero Query", "100% accuracy", "100% On-time delivery of services" and "Zero Visit to Office"  and Total Transparency in all Employee centric service requests and processing.

All processes related to the delivery of various employee related service requests have been standardized, after which they were e-enabled.

The developed Initiative has helped reduce cycle time in processing and approval of employee centric services drastically, and enhance employee satisfaction.

The Project has e-enabled all Employee Centric services with no manual intervention, which has led to a paperless office & helped for a greener environment.

It has reduced Infrastructural, Technical, Administrative, Staff and Processing costs to a significant extent for the organization.

It has brought all employee centric services to the desktops of employees.

All services are available Online 24X7. This has helped all employees, even those who are in Second shift ( factory timings : 4 pm to 1 am) and Third Shift ( factory timings : 1 am to 7 am) to file service requests.

The Project is a unique Corporate Social Responsibility (CSR) initiative taken by BHEL, for ex-employees, who form a large part of the BHEL Fraternity

16. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

**(i)  To organization**

This initiative has brought the BHEL administration closer to all the sections of the employees. It has provided a single, efficient information dissemination system to the employee for availing all employee centric services by minimizing multiple interaction points for the employee and hence reducing the wastage of valuable time. The Initiative has also provided for better turnaround time in receipt, processing and issue of services and has ensured Total Transparency in all Employee service requests.

As the Initiative is Bi-Lingual, it has been very popular and user friendly

amongst all categories of all employees. All services are Accessible from Anywhere and are available Online 24X7. This has helped all employees, even those who are in Second shift ( factory timings : 4 pm to 1 am) and Third Shift ( factory timings : 1 am to 7 am) to file service requests.

As the Initiative has a SINGLE SIGN ON facility, the employees has to remember only his/her staff number and one password, and get access to all employee centric services.

SAMPARK is a one-stop employee centric electronic solution offering Multiple services, for all kinds of Information, Reimbursements, Entitlements and Benefits in the company. It has helped in the foll:-

- Bringing in Total transparency & Accountability
- Reduction in the cost
- Improving efficiency and productivity of employees
- Reduction in Workloads
- Offering Controls , Checks, Alerts and Validations
- Employees are satisfied and motivated
- 100% In-house Development. No 3rd Party Support / Tools used
- 100 % accuracy and Zero Delay in delivering services
- 99.99% Availability of Services
- Enhanced Customer Satisfaction and Employee Productivity
- Image and Trust Building of the Organization
- Reduction in cycle time for processing & approval by about 90%

The Initiative offers end-to-end solution and this has enabled better turnaround time in receipt, processing and issue of services and has provided employee centric services in a comfortable environment and made it a pleasant experience.

The developed Initiative has helped reduce cycle time in processing and approval of employee centric services drastically, and enhance

employee satisfaction.

The Project has e-enabled all Employee Centric services with no manual intervention, which has led to a paperless office and helped for a greener environment.

Ex-employees always have been an important stakeholder to BHEL. This was a new Initiative taken in order to provide them an online platform so that they don't have to come physically to BHEL for resolution of their queries.

**(ii)     To citizen**

The Initiative is only for BHEL Employees

**(iii)     Other stakeholders**

The Initiative is only for BHEL Employees

17.     Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

This project is G2E i.e. the end-users of this system are the employees of BHEL. The objectives which were targeted at the time of starting of this project were completely achieved.

**Main objectives met are:**

1. To bring All employee centric services to the desktops and doorsteps of all the gamut of employees.

2. To bring BHEL Administration and Management closer to all sections of employees.

3. Provide a single window, efficient system to all employees for availing various Employee centric services by minimizing multiple interaction points for the employee and hence reduce the wastage of valuable time.

4. Provide services in a comfortable environment and make availing of the information services a pleasant experience.

5. To create a knowledge-based society by using IT as a medium for effective interaction between the BHEL Administration and the employees so that exchange of information and access to all employee centric services is speedy and easy, leading to a better quality of life.

6. To develop a system which can compile the data for BHEL Employee Pension Scheme, calculate Pension corpus & generate Pension forms

7. To provide an online interactive platform for Ex-employees so that they can raise their concerns / queries & get response within short span of time

8. To develop a social network within BHEL for Ex-employees

9. To provide a system for HR & FINANCE admins to track the various queries received from Ex-employees

10. Raise the standards and quality of service delivery in Central PSUs.

11. Bringing in Total Transparency in all Employee Centric related Services

12. Reduce Infrastructural, Technical, Administrative, Staff and Processing costs to a significant extent for the organization.

13. Eliminate redundancy, incorporated proper work flow management and reduced workload to all stakeholders.

The main beneficiaries are Roll Employees of BHEL-Bhopal (8000+), working in the unit and across the various on-sites, spread in the country and the Ex-employees of BHEL-Bhopal (18800+) , who reside across the various parts of the globe.

Around 3000+ employees, residing in various parts of the country, have received pension after filling all the formalities through this system.

18. Other distinctive features/ accomplishments of the project:

> **Awards and Accolades**
>
> - This Initiative has won the **1st Prize in the CSI National Awards for Excellence in IT 2013. The award consists of Rs. 1 lakh , a trophy and Certificate** .
>
> - This Project has been registered for **COPYRIGHT**
>
> - Won **Gold in Quality Circle Forum of India**

# AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

- **Award for Excellence in BHEL**

**Key Features of the Initiative**

- An Integrated, Workflow based Portal for all Employee Services

- One of its kinds in any of the PSU's

- Unique CSR Initiative

- GREEN IT - Paperless Office

- 100% In-house developed

- Covering all categories of Employees (Including Workers)

- Bi-Lingual and User Friendly

- Enhanced Employee Productivity and Satisfaction level

- Notifications at every action

- Accessible from Anywhere

- Replicated in BHEL sister units

- e-Workflows for all services

# This is just an indicative list of indicators.  Applicant can add on more information based on suitability of the project nominated.