

## RECOGNITION OF PRIOR LEARNING APPLICATION

**This document is required to be completed for all Recognition of Prior Learning (RPL) Application types and must be attached to the online application form under the RPL tab in PDF format.**

In this document there are two sections that all applicants must complete –

- [The Key Areas of Knowledge – Section 1](#)
- [The Project Report Forms – Section 2](#)

RPL applications are for those applicants who do **not** hold a recognised tertiary ICT qualification and have a minimum of 6 years of closely related experience. Please refer to the [Summary of Criteria](#) for further information.

This document provides the opportunity for an applicant to demonstrate the depth and breadth of knowledge learnt throughout their experience.

Applicant Name	XXXXXXXXXXXX
Application ID (if known)	XXXXXXXXXXXX
Applicant Date of Birth	

### SECTION 1 – KEY AREAS OF KNOWLEDGE

#### INFORMATION ABOUT THE AREAS OF KNOWLEDGE

Please read the following document to assist you in completing the Key Areas of Knowledge - [Key Areas of Knowledge](#)

Applicants will need to detail the relationship between the selected Areas of Knowledge and what they have learnt from their experience and qualifications. This section of the RPL needs to be specific as to how and where the applicant has learnt the knowledge.

You will only need to tick and complete the areas of knowledge you believe you have acquired throughout your experience

**Please Note:** *None of the areas are mandatory.*

This is one of the most important parts of the assessment and therefore it should be comprehensive in its content and clarity.

**It is important that you:**

- **Identify what Areas of Knowledge you have learned by selecting the appropriate box.**
- **Explain how you acquired and applied the knowledge in your working environment in the expandable typing area.**

## Key Areas of knowledge

### ICT PROBLEM SOLVING (PS)

How have you acquired and applied this knowledge in your working environment?

Problem Solving is the fundamental requirement whenever you are part of an organization that provides ICT solution and services like GETRONICS and IBM. I applied this knowledge during the time when we onboard new client to our organization, providing solution to client with regards to their ICT requirement during on boarding activities and during project deployment. Knowledge of using modeling methods and processes to understand problems, handle abstraction and design solutions contributes in ensuring duties are performed effectively.

Following the basic steps of Problem Solving, I ensured that the on boarding and project deployment was delivered as agreed when ever issue or problem arise. The first step, I will look into tools such as RCA (Root Cause Analysis) or On boarding Checklist or Risk & Issue Log to define and identify problems. Once problem is identified, the next step is to understand the complexity of problem and it can be done by using cause effect diagram or flow chart. The next step will be to list down and explore alternatives that might be available to resolve the problem and evaluate the alternatives. Once the best solution is identified, it will be implemented after planning and include it in the next implementation phase.

My past and current working experience since GETRONICS have exposure me to this skills and I have used these skills in all the projects handled during my professional career. On-boarding Checklist, MS project, RCA, cause effect diagram, questionnaire, Diagrams, flowchart and other various tools to define and identifying problems and implementing solutions have been used by myself.

**Refer to my reference letter and CV**

### PROFESSIONAL KNOWLEDGE (PK)

- Ethics
- Professionalism
- Teamwork Concepts and Issues
- Interpersonal Communication
- Societal Issues/Legal Issues/Privacy
- History and Status of Discipline.

How have you acquired and applied this knowledge in your working environment?

Being a professional, every individual requires a level of 'professionalism' where they will demonstrate a degree of autonomy and responsibility, behaving in an ethical manner and demonstrating high level communication and interpersonal skills. Being engaged with people since college days as well from beginning of my career years, I have learned a lot about Interpersonal communications. For a relationship to work successfully in working environment, you will need to have the right ethics, have good interpersonal communication skills as well good teamwork. My working experiences have made me to communicate with all levels of people internally and externally which lead me to develop strong interpersonal skills.

Starting from being a Request Management Executive to Project Manager, I have involved in solution design paper for new client to be on-boarded, creating new procedure for new deployment or implementation, review of designed process flow and diagram, prepared



presentation to be presented to client and stakeholders as well making sure all privacy, intellectual property and legal issues review during on-boarding of a new client in client location. Due to my long year of working experience as well lead teams in various capacity (as Focal, Team Lead, Lead, Project Manager and Manager). I have solid background of written and verbal communication with clients (via all medium either physically or virtually). As Service Improvement and On-boarding Lead, Project Specialist and Project Manager, I was required to write proposals, technical report writing (preparing technical documents) and creating or updating the existing user documentation. I always engaged with my team in meetings to brainstorm designing solutions, analyzing performance of network when new client need to be on-boarded. Being a leader, few of my key strength are collaboration, teamwork, team development and conflict resolution.

Refer to my reference letter and CV

TECHNOLOGY RESOURCES (TR)

- Hardware and Software Fundamentals
- Data and Information Management
- Networking

How have you acquired and applied this knowledge in your working environment?

**TR1. Hardware and software fundamentals**

I started learning about hardware and software fundamentals during my college day when I was studying for Advance Diploma in Computer Information Systems as well via self learning where I learned various aspects of computer hardware like memory (RAM and ROM), Central Processing Unit (CPU) as well Input and output devices and software related education such as concept of System software and application Software meanwhile during my working period I was introduced to various business application software like ServiceNow, Remedy, IBM Tivoli etc. During my period as Service Improvement and On-Boarding Lead, Project Specialist and Project Manager, I used various software like MS Project to plan out timeline of a project; use MS Visio to draw LAN and WAN diagram and use Remote desktop for Network troubleshooting.

**TR3. Networking**

I started learning about basic concept of networking during my college day when I was studying for Advance Diploma in Computer Information Systems as well via self learning. I have learned a lot about Network such as types of Network available, Network Connection Method available, different Network Topology and Network architecture for system like Client – Server, Peer to peer etc. In additional I learned about 7 layers of Open Systems Interconnection (OSI Model), Data Transmission Protocol like TCP IP, FTP/HTTP/DHCP and about Private Network. During my work period I learned about World wide web concept and understood about Social networking and threats and risk like Worm, virus attacks and phishing through various websites like CERT, ISACA etc. At the same period I learned the concept and usage of network devices like routers, switches and firewall as well how to configure these devices based on requirement and secured the network from external threats.



During my time as IT Personnel, I started using my knowledge about Hardware, Software and Networking as I was the sole person supporting the company. Although it was a small company but I was able to utilize what I have learned. After that I assisted my colleagues and friends outside working time to install, fix or setup hardware, software and network as freelancer. During my time as Service Improvement and On-boarding Lead, Project Specialist and Project Manager, I was required to use my knowledge on these topics as I needed to identify the Hardware required when a new client is onboard to the organization. Example, what type of desktop or PC required, identifying whether server needed, firewall setup, Cisco router requirement, hub or switches requirement, how many rack required and analysis of current capacity of hardware. Also Software requirement based on client requirement, for example, type of OS, support tools or application, monitoring tool, application for PC/Desktop/Server and Security applications. The third item will be Networking where analysis of current network need to be done as well what is required incase additional network needed. Framework of network topology based on client requirement whether they require private or shared network for security reasons. For example, one of the client was an international bank who required us to have separate private network with right security setup. In summary, all the clients had their own respective requirement which I was obliged to follow especially related to hardware and networking. Each client will have their own respective Technical Documents and Procedures that I will create.

Refer to my reference letter and CV

SERVICES MANAGEMENT (SM)

- Service Management
- Security Management.

How have you acquired and applied this knowledge in your working environment?

#### Service Management

Since I been part of BPO (Business Process Outsourcing) organization for past 7 years plus hence Indirectly I have learned about Service Management. In additional I have completed my ITIL v3 Foundation and ITIL Intermediate Service Operation certification which help me to have better knowledge on ITIL and its framework. Starting from my Request Management Executive role to my current role as Technical Service Manager, I have direct involvement on SM since we are providing services to end users. During my time as Service Improvement and On-boarding Lead and Project Specialist, I will be always engaged with client and end users from initial stage of an on-boarding until closure. All my on-boarding as well projects I dealt with is always been inline with ITIL and PMP/Prince2 framework. All feedbacks received with regards to system performance, network issue etc, will be reviewed and ensure it is close to avoid any business impact. In additional, in my current role as Technical Service Manager, one of my key deliverable is being Single Point of Contact for escalations on all operational issues. IBM and GETRONICS Is adapting ITIL framework in their organization.

Over the 7 years plus, I have applied all 5 phases of ITIL Framework in my working period which is Service Strategy (applied during my Service Improvement and On-boarding Lead and Project Specialist role), Service Design (applied during my Service Improvement and On-boarding Lead, Project Specialist and Project Manager role), Service Transition (applied during my Service Improvement and On-boarding Lead and Project Specialist role), Service Operation (applied during my Service Improvement and On-boarding Lead and Project Specialist role) and CSI (applied during my Service Improvement and On-boarding Lead, Project Specialist and Technical Project Manager role)



**Refer to my certification (ITIL), reference letter and CV**
**OUTCOMES MANAGEMENT (OM)** 

- IT Governance
- IT Project Management
- Change Management
- Security Policy.

How have you acquired and applied this knowledge in your working environment?

**IT Project Management**

I obtained the knowledge of PM during my working period in GETRONICS when I was under Service Improvement and On-boarding Lead role. I enrolled internally for Project Management Essentials (PMBOK Guide – 4<sup>th</sup> Edition) and went thru the course online. Later I enrolled for PMP Preparation Course which was class based course. From these two courses, I learned a lot about Project Management and what it is all about. I started using PM knowledge in my work in GETRONICS as well IBM. During the time in IBM, I enrolled for another two PM courses which is Project Management Orientation and Project Management Fundamentals. I learned about the toolsets, skills and techniques in delivering a project as well meeting stakeholders objectives and expectations. From my time as Service Improvement and Onboarding Lead to Project Manager, I have followed all the different phases available in PM such as Initiation and Planning, Executing and Controlling, Closing. Project Management provides list of documents and process such as Project charter, Scheduling, Change management, Risk Mitigation, Project Review, Risk identification, Cost Estimation. The two main applications I used for project planning is MS Project and Excel Sheet. As Project Specialist/Project Manager I'm also responsible for resource allocation, Solution finalization and budget.

**Change Management (CM)**

Change Management is part of Project Management and all projects that I lead, had Change Management because it was transitioning from current state to future state. During my time as Service Improvement and Onboarding Lead, I will need to get CAB/Change Board approval in order to roll out EPRM in the respective countries or companies. During my time as Project Specialist, I will need to evoke Change Management because clients are moving either from their own or external supported services to GETRONICS. I need to ensure all movement is analyzed, review and CM approval obtained before moving. During my time as Project Manager, I will need to go thru CAB/Change Board for approval.

**Refer to my certification, reference letter and CV**

**SECTION 2 - RPL PROJECT REPORTS**

A project report is a coherent written description of a project or engagement that provides you with the opportunity to show how you perform as an IT (Computing) Professional, and enables assessors to understand and question your thought processes and decisions. Each report is to relate to a significant project or work episode undertaken by the applicant during his or her professional career.

The purpose of these reports is to enable applicants to demonstrate their command and implementation of the Areas of Knowledge claimed in your application.

**Please note: Applicants are required to provide two project reports.**

Of the two reports, one must pertain to project undertaken within the last three years, and the other for project within the last five years. Projects over two years long may be used for both reports under either of the following conditions:

- The project has clearly-defined work efforts which took place in parallel, each with their own solution development and design activities and their own deliverables.
- The project had clearly-defined phases that were executed in succession, each with its own solution development and design activities and deliverables. Note that a second project phase that constructs and implements the solution developed by the first phase does not meet this requirement.

Depending on the nature of the applicant’s role in the project, this would be expected to cover a selection of such factors as:

- System Analysis and Design and Software Engineering methodologies used;
- Contribution to the processes involved in the design and implementation of enterprise-wide computer systems;
- Programming languages, design paradigms and implementation procedures adopted;
- Database and/or file design and management techniques employed;
- Network topologies, including size, distribution and security facilities installed;
- Project Management and quality assurance techniques followed;
- Internet application design, including database interactivity and security measures implemented;
- ICT managerial activities, demonstrating the nature and extent of responsibilities

Project Summary:			
	Project Name	Start Date	End Date
Project 1	Reference Data 3.4 (Tech Refresh - AR021) - RDx Software Upgrades – OS & Middleware	05/13	11/13
Project 2	Wallboard Phase 2 Project	01/11	06/11

**Instructions**

**The following pages provide a template for your reports.**

When writing your reports please provide your own thoughts – do not just copy project documentation. Diagrams from the project documentation may be helpful, but the text should be in your own words.

Please use the first person in your discussion, so it is clear to the assessors what you did versus what others did – say “I did X” rather than “X was done”.

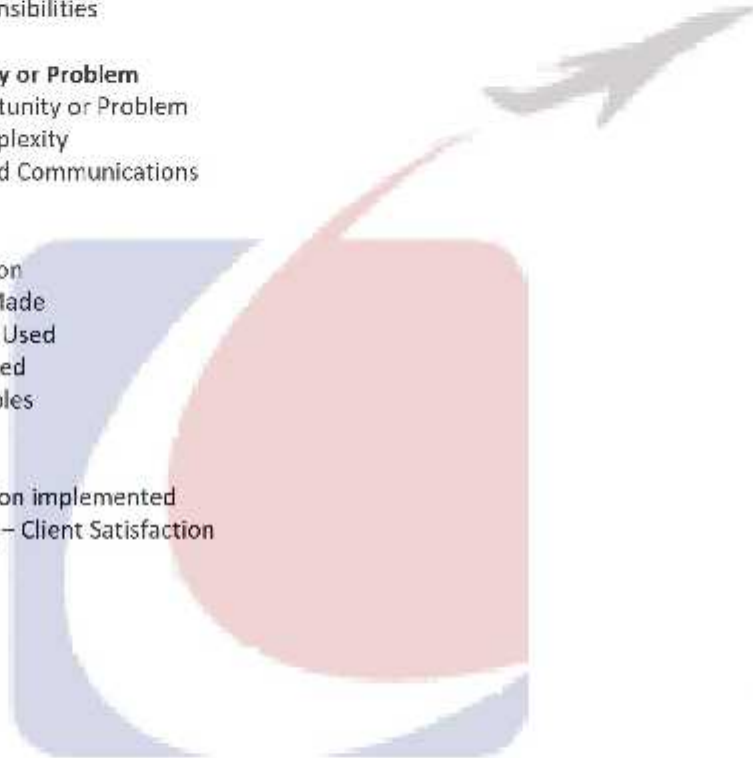
Diagrams may be helpful, but please ensure that they are relevant, readable, and help the assessors to understand what you did on the project.

Focus on quality rather than quantity.



Below are a summary of sections you will need to complete for each project-

1. **Project Summary**
  - 1.1. Identification
  - 1.2. Duration
  - 1.3. Resources
  - 1.4. Personal Involvement
  - 1.5. Role and Responsibilities
  
2. **Business Opportunity or Problem**
  - 2.1. Business Opportunity or Problem
  - 2.2. Scope and Complexity
  - 2.3. Relationship and Communications
  
3. **Solution**
  - 3.1. Your Contribution
  - 3.2. Key Decisions Made
  - 3.3. Design Method Used
  - 3.4. Design Tools Used
  - 3.5. Major Deliverables
  
4. **Results**
  - 4.1. Was your solution implemented
  - 4.2. Overall Success – Client Satisfaction
  - 4.3. Lesson Learned



**Project 1: Reference Data 3.4 (Tech Refresh - AR021) - RDx Software Upgrades – OS & Middleware**

1. Project Summary

1.1. Identification

Client's Company Name	IBM US	
Trading Name/s	IBM	
Company Size	400,000	
Business Address	IBM Corporation 1 New Orchard Road Armonk, New York 10504-1722 United States	
Contact Numbers	Tel: +1 800-IBM-4YOU (800-426-4958)	
Web Address	<a href="http://www.ibm.com">www.ibm.com</a>	

Email Address	ews@us.ibm.com
Nature of project	Software Upgrade – OS and Middleware
Location of project	Cyberjaya, Malaysia
Name of your employer	Client Innovation Centre Malaysia Sdn Bhd (formerly known as Global Delivery Centre Malaysia Sdn Bhd)

**1.2. Duration**

	From	To
Total project duration	05/13	11/13
Your involvement	05/13	11/13

**1.3. Resources**

	Your team	Client
Project team size	11	4
Size of team led by you	5	2

**1.4. Personal Involvement**

*Please list the phases of the project in which you were personally involved*

Start	Completion	Phase Description
05/13	07/13	Planning
07/13	10/13	Implementation
10/13	11/13	Monitoring and Evaluation
11/13	11/13	Closure

**1.5. Describe your role(s) and responsibilities, including the leadership aspects.**

I was appointed as the Project Manager for Reference Data 3.4 (Tech Refresh - AR021) - RDx Software Upgrades – OS & Middleware. My main roles and responsibilities during the project was:-

- 1) Lead the technical team as well work with client team in ensuring delivery of the project within agreed timeline.
- 2) Work with Solution Architect in ensuring the technical requirement and architectural is as per requirement and expectation.
- 3) Work and verify the Deployment Design Document with Solution Architect.
- 4) Provide approval and sign-off into production deployment.
- 5) Schedule and manage Technical Resources as well Support team during project and implementation phase.
- 6) Co-ordinate technical activities.
- 7) Complete IGA Deployment Checklist.
- 8) Manage Project Finances and Reporting as well tracking of the project progress until end date.
- 9) Provide daily/weekly update to stakeholders on the status of the project until end date including RISK identification and dependencies of projects.



**2. Business Opportunity or Problem**

**2.1. Describe the business opportunity or problem(s) this project addressed and how it related to the (internal or external) client’s needs.**

CIO (part of IBM internal team) Tech Refresh activities was going in IBM for Reference Data application in year 2013 where all services/LPARS in power5 servers are being migrated to power7 servers globally. In order to meet the migration, the OS and Middleware In the Identified services/LPARS need to be upgraded to the latest version that is supportable in the new power7 servers. The upgrade need to be complete by November 2013 in order for the P7 migration can take place.

**2.2. Describe the scope and complexity of the problem.**

The scope of the project is as following and we are required to perform these activities first in the Pre-Production environment (ibmkr3e4, ibmkr3es and ibmkr3er LPARS) and after that in the Production environment (ibmkp1e4, ibmkp1es and ibmkp1er LPARS). Since it involves various middleware upgrade as well OS upgrade hence any wrong timing or sequence in upgrading the applications can cause failure in launching the main application (Reference Data) and can lead to losing million dollar transitions. Following are the sequence of the upgrade/migrations:-

- Upgrade OS and middleware for 6 LPARS which runs RDx Applications
- Upgrade AIX from version 5.3 to 6.1 for ibmkr3e4, ibmkp1e4, ibmkr3es, ibmkp1es, ibmkr3er and ibmkp1er LPARS.
- Upgrade MQ from version 6.0.2.11 to 7.0.1 for ibmkr3e4, ibmkp1e4, ibmkr3es, ibmkp1es, ibmkr3er and ibmkp1er LPARS.
- Upgrade WAS from version 6 to 7 for ibmkr3es and ibmkp1es LPARS.
- Install WAS version 7 for ibmkr3er and ibmkp1er LPARS.
- Upgrade DataStage from version 7.5 to 8.5 for ibmkr3er and ibmkp1er LPARS. (Only DS 8.5 support DB2 9.5)
- Migrate Application (WMB, Price Feeds, RDFinance and OIM Webservices) in all 6 LPARS.

SI#	Current Software version	Planned Software Upgrade	Remarks
1	AIX 5.3	AIX 6.1	AIX 6.1 is the latest version available on SCP (UK SDC) environment
2	MQ 6.0.2.11	MQ 7.0.1	Higher versions of MQ not compatible to AIX 6.1
3	WAS 6	WAS 7	Higher versions of WAS not compatible to MQ 7.0.1
2	DS 7.5	DS 8.5	Higher versions of DS not compatible to WAS 7 and DB2 9.5

**2.3. Describe your relationship and communications with client management / user management / end users.**

I'm was always engaged with client on weekly basis via tele-conference calls as well providing progress report at end of each day during until the project closure. Issues, Risk and Problems that arise during the planning stage as well during the implementation stage is addressed during this meetings. Whenever any issue arises, I will work with client team to ensure mitigation is available.

**3. Solution**

**3.1. Discuss your contribution to the solution, project or engagement including the rationale behind key choices. Please enumerate the alternatives you considered and your reasons for their rejection.**

I was involved in the project from the planning and initiation stage. As the lead of the project, I was required to analyze the solution given prior to the creation of the project team when it was raised by client at the first time. I worked with the Solution Architect to review and determine whether the version of OS and middleware is compatible with each other. While performing the analysis on the solution, I found a High Risk event that can cause the upgrade/migration to fail. I found that other than ibmkr3es, ibmkr3er and ibmkr3eg services, there are another two more services running in same LPAR. The services are ibmkr3es and ibmkr3eg. ibmkr3es cannot be upgraded to AIX 6.1 due to legacy version of WAS 5 & Versata running. Both these middleware is not compatible with AIX 6.1 version. Services ibmkr3es, ibmkr3er and ibmkr3eg are on one LPAR (B06CXHP51051). After discussing with client and highlighting the issue, we changed the solution by adding new task as part of the project deliverable. The new deliverable as follows:-

- ibmkr3es, ibmkr3er and ibmkr3eg services need to be separate from the LPAR that contain ibmkr3es and ibmkr3eg services into a new build LPAR. ibmkr3es and ibmkr3eg will remain in old LPAR.
- New LPAR build required with AIX 6.1
- For ibmkr3es and ibmkr3er services, following version of Middleware required to be installed;
  - ✓ MQ 7.0.1
  - ✓ WAS 7
- For ibmkr3er and ibmkr3eg services, following version of Middleware required to be installed;
  - ✓ MQ 7.0.1
  - ✓ WAS 7
  - ✓ DataStage 8.5
- Migrate RDx Application (WMB, Price Feeds, RDFinance and OIM Webservices) from old LPAR to new LPAR.



**3.2. Enumerate and describe the key decisions you made, and the reasons for making them as you did.**

Append below is list of key decisions that I made in this project:-

- 1) One of the key decisions I made was as explained above on the creating new LPAR.
- 2) During the planning stage of new LPAR creation, I made decision to separate the upgrade/migration of the services. ibmkr3es and ibmkp1es services as one upgrade/migration activities and ibmkr3er and ibmkp1er services as another separate upgrade/migration. The reason of the movement is because the later services require DataStage upgrade and the earlier one is a straight forward upgrade/migration.
- 3) Another beneficial decision I made was to have a daily chat group (and calls if required) during the planning and implementation stage because it made easier for the technical team to engage client technical team and understand any issues or matters faster rather than arranging a call.

**3.3. Describe the design method you used on this project and the rationale for its selection.**

The design methodology that I used for this project was the general method as follows:-

- 1) Identifying the Problem
- 2) Defining the Problem
- 3) Generating Ideas for Possible Solutions
- 4) Selecting the Best Solution
- 5) Evaluating the Solution
- 6) Refining the Solution as Needed
- 7) Communicating the Solution

When the project was initiated, the client has provided a specific requirement on what need to be upgraded /migrated. Based on the requirement, I used the above method as a guide on meeting client requirement.

**3.4. List the design tools you selected for use on this project and discuss the rationale for their selection.**

Design tools that I have used for this project where:-

- 1) MS Project – Created and listed down all detailed activities, assigning of resources to each activities as well tracking of the project progress.
- 2) MS Excel – I used for my financial record tracking, software order document, keeping track of change request, IGA Checklist and details of services and LPARs that contain information like equipment seating in racks with specification, IP address and ports used , OS and middleware etc.
- 3) MS Word – Creation of technical document, procedure document for operation team, questionnaire, project charter and minute of meetings.
- 4) MS Visio – To update the existing technical architecture in the technical document and procedure document.
- 5) MS PowerPoint – Used during presentation to client on weekly basic as well during kickoff meeting.

**3.5. List the major deliverables of the project that you were responsible for or contributed to, and summarize the reason for their inclusion.**

- 1) Project Definition Workshop (PDW) – The initial data gathering/information confirmation of the project.
- 2) Project Definition Report (PDR) – Once the above is completed, I'm required to create this report and get signoff from the stakeholders. This report list down in detailed activity list and dependency list as well provide the summary of PDW. It is the official document to start the project.
- 3) Financial Baseline
- 4) Project/Schedule Baseline
- 5) Steady State Signoff
- 6) BAU Signoff after Pre-Production and Production Deployment
- 7) Project Evaluation Report
- 8) Project Closure documentation
- 9) Deployment Design Document (DDD) – Technical Document with regards to the deployment architecture.

**4. Results**

**4.1. Was your solution implemented? If so, describe the role, if any, you had in the implementation. If not explain why not.**

Yes, the solution was implemented as agreed in PDR and DDD. The OS and Middleware was upgraded to the required version as well creation of new LPAR to support the services. As stated above, as I'm the Project Manager hence I'm responsible to prepare the detailed project plan which include solution design, implementation of the solution, creation/updating technical document as well tracking the progress of the project and signoff of completion.

**4.2. Assess the overall success or failure of the project. Comment on client satisfaction, attainment of objectives, and ultimate versus proposed cost and schedule.**

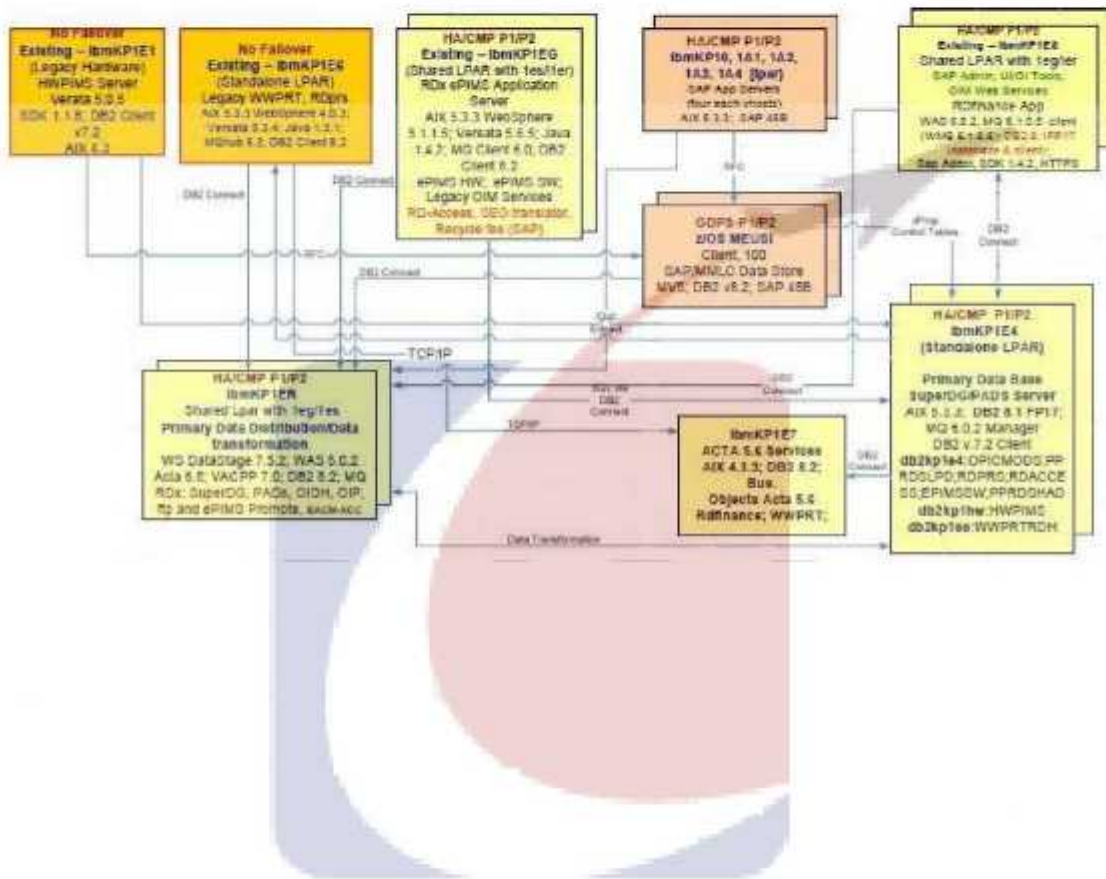
Overall the project was a successful as we delivered as per client requirement and objectives as well within the agreed timeline. The client was satisfied with the delivery and I didn't receive any negative feedback about the project or about the team. Overall everyone worked as a team in ensuring we meet the target. From financial stand, we did good as we didn't over spend although creation of a new LPAR was not part of the initial costing however it didn't over run the budget.





## 7. Architectural Overview

The Architecture Overview diagram is a schematic diagram that represents the governing ideas and candidate building blocks of an IT system or enterprise architecture.



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**Project 2: Wallboard Phase 2 Project**

**1. Project Summary**

**1.1. Identification**

Client's Company Name	Getronics Technology Sdn Bhd	
Trading Name/s	Getronics Technology Sdn Bhd	
Company Size	180	
Business Address	Level 7 Block 3A Plaza Sentral Jalan Stesen Sentral 5 50470 Kuala Lumpur Malaysia	
Contact Numbers	Tel: +6 03 2264 9688	
Web Address	http://www.getronics.com	
Email Address	General email address	
Nature of project	Application Deployment	
Location of project	KL Sentral, Kuala Lumpur	
Name of your employer	Getronics Technology Sdn Bhd	

**1.2. Duration**

	From	To
Total project duration	01/11	06/11
Your involvement	01/11	06/11

**1.3. Resources**

	Your Team	Client
Project team size	4	4
Size of team led by you	2	2

**1.4. Personal Involvement**

*Please list the phases of the project in which you were personally involved*

Start	Completion	Phase Description
01/11	02/11	Definition
02/11	03/11	Planning
03/11	06/11	Execution
06/11	06/11	Evaluation

**1.5. Describe your role(s) and responsibilities, including the leadership aspects.**

Global Service Centre (GSC) is a business unit within Getronics Technology Sdn Bhd which have international business direction from Hungary. There are 4 GSCs in the global and Malaysia being one of them. GSC business model is Business Process Outsourcing (BPO) where client outsource their IT support to GSC to manage. Service Desk is one of the core businesses for GSC and they support various clients across the global. One of key tools used in Service Desk is the Wallboard which is to view the availability of agents at one view. My role as the Project Specialist was to deploy the new version of Wallboard in GSC Malaysia, evaluate and review the design of the application as well the infrastructure design whether it can be deployed in GSC Malaysia and purchase of equipment to run the application. Receive feedback from end users with regards to the new version and include it as part of the design upgrade.

**2. Business Opportunity or Problem**

**2.1. Describe the business opportunity or problem(s) this project addressed and how it related to the (internal or external) client's needs.**

The new version of Wallboard would be more friendly and easy to view and understand compare to its predecessor. The Wallboard will be part of the selling point for the business when they present to client on the facilities and toolset that GSC uses to support their clients.

**2.2. Describe the scope and complexity of the problem.**

1. GSC was previously using the old version of data screen to monitor SLA and agents activity.
2. The old version of data screen had limitation on what is displayed on the screen and it varies from one GSC to another. Below are some of the limitation:-
  - a. Agents per display
  - b. Call types per display
  - c. Scalability
  - d. System alerts
3. Because of this limitation, the GSC management decided to implement a new standardized wallboard throughout all 4 GSC across global.
4. The new wallboard will eliminate the limitation on the old data screen for all 4 GSC and provide uniformity.
5. The new wallboard solution is to provide:
  - a. Accurate and up-to-date information displayed
  - b. Ease of Configuration at the desk level
  - c. Outage information both Getronics and customer-related
  - d. Color coded data to enable easy determination within the contact centre
  - e. News information – as a lickertape

**2.3. Describe your relationship and communications with client management / user management / end users.**

As the Project Specialist, I receive the instruction from GSC Malaysia General Manager as well from the GSC General Manager and Global Project Manager since the Wallboard deployment is across the 4 GSCs globally. I'm engaged them via tele-conference calls on weekly basis to provide update on the progress of the deployment in Malaysia. During this call all issues and risks that arise during the planning stage as well during the implementation stage will be addressed. Progress status report is sent out on weekly basis in order for the stakeholders aware on the progress of the deployment.



### 3. Solution

#### 3.1. Discuss your contribution to the solution, project or engagement including the rationale behind key choices. Please enumerate the alternatives you considered and your reasons for their rejection.

When global Project Manager shared the deployment plan to me, I reviewed and suggested some changes to the deployment date and as well the infrastructure setup. Due to system instability when the Wallboard is link directly to IPCC server, there been frequent downtime. The global development team suggested upgrading the existing server in order to link directly the IPCC server then transit the data to Wallboard application. By performing this activity, this lead to longer deployment period. In additional, we will require purchasing new server rack which incurs cost. After analysis and reviewing the Wallboard application design hence I suggested purchasing 4 desktop and making these desktops as the "Server" to run the application. These "Server" will link directly to IPCC Server. Although initially the global team didn't agree with the new plan, after I explain the cost we might save as well the advance of using a desktop rather then a server to run Wallboard Application then they agree with my suggestion.

#### 3.2. Enumerate and describe the key decisions you made, and the reasons for making them as you did.

I decided on above solution because of few reason and one being cost effective by avoid any additional cost for the centre since we cant recover from global. Another reason is because it is easy to maintain compare to server where in-case any technical issue with the application, we are not require to restart the main server but only desktop facing issue. That is reason why I purchased 4 desktop so we wont relay one physical equipment. Based on past experience, when the Wallboard Application was linked directly to IPCC server, there been frequent downtime. In case if IPCC server linked to main server and the application crashed, we will have no choice to reboot the server which will affect other application running the in the server.

#### 3.3. Describe the design method you used on this project and the rationale for its selection.

The design methodology that I used for this project was Definition, Planning, Execution Completion and Evaluation. During Definition phase, I analyzed and understood the scope of my work. In Planning phase, I identified the equipment and software that need to be purchased. At same time, I performed feasible study on the requirement, identified risk and impact on business. Once done, I came up with alternatives plan that can benefit the organization more. In same phase, I listed down all key list of activities, dependency and assigned resource in MS Project accordingly as well updated the main project plan. In Execution phase, the roll out of the Wallboard application was initiated once all equipment and software setup is completed. And finally in Evaluation phase, once the application went to Steady State, I handover and transfer the knowledge to Operation and IT Manager.

#### 3.4. List the design tools you selected for use on this project and discuss the rationale for their selection.

Design tools that I have used for this project where:-

1. MS Project – Tracked and listed down all detailed activities, assigning of resources to each activities as well tracking of the project progress.
2. MS Word – Updating of technical document, procedure document for operation team, questionnaire, project charter and minute of meetings.
3. MS Visio – To update the existing technical architecture in the technical document and procedure document.

**3.5. List the major deliverables of the project that you were responsible for or contributed to, and summarize the reason for their inclusion.**

I was responsible for the entire deployment and setup of Wallboard in GSC Malaysia. The major deliverables were scheduling, budget, cost, designing of the new infrastructure setup, purchases, installation and end to end deployment of the Wallboard application. Following are some of other deliverables during the project phase:-

1. Signoff from GSC Malaysia General Manager and Global Project Manager
2. Software installation (.NET and SQL Server 2008)
3. Lesson Learned
4. Project Closure
5. Updating of the technical documents with new architecture

**4. Results**

**4.1. Was your solution implemented? If so, describe the role, if any, you had in the implementation. If not explain why not.**

Yes, the solution was deployed as per requirement although there were changes in the infrastructure setup but it was agreed with Global Project Manager and GSC Malaysia General Manager on the change. As stated above, as I'm the Project Specialist hence I'm responsible to prepare the detailed project plan which includes solution design, implementation of the solution, creation/updating technical documents as well as tracking the progress of the project and signoff of completion.

**4.2. Assess the overall success or failure of the project. Comment on client satisfaction, attainment of objectives, and ultimate versus proposed cost and schedule.**

Overall the project was a success as we delivered as per management requirement within the agreed timeline. The management team was pleased with the successful deployment of the Wallboard Application in GSC Malaysia. From a financial stand, we managed to save some cost with the change of infrastructure setup.

**4.3. Lessons Learned**

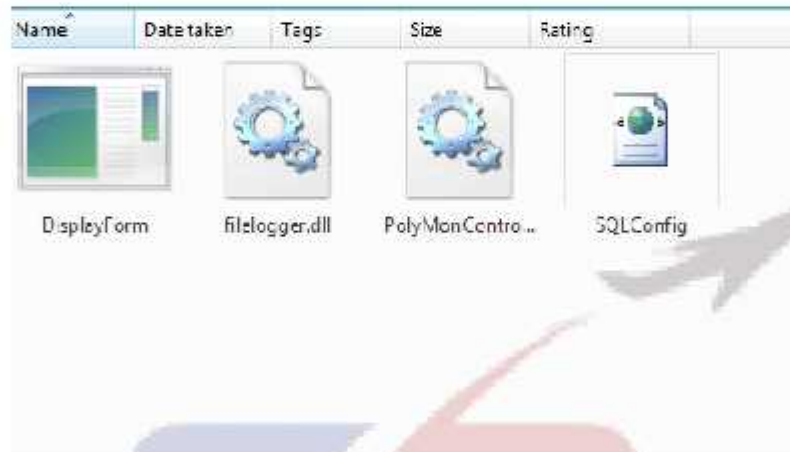
*In retrospect, what you might have done differently on this project and what lessons did you learn?*

I take full responsibility and authority on this project so the project can be done successfully in accordance to my proposal and setup. Since I was only involved after discussion between my GSC Malaysia General Manager, GSC Global General Manager and Global Project Manager, the initial solution given was found not suitable and costly. If I was involved from the initial discussion, possibly I would have highlighted to them with regards to my proposal. The management needs to understand that although we operate in a similar manner across the 4 GSCs however when it comes to infrastructure, it differs from one to one. Another lesson learned was GSC Malaysia was not involved in the earlier discussion when the Wallboard application was initially started. In the future, Global GSC management requires getting everyone from each GSC to participate in any global deployment. Timely communication during the execution phase with the exact status of the operational activities. The capacity of the GSC Malaysia server was not analyzed before the solution came out. It is vital for any project deployment to check the capacity of an equipment before it is rolled out.

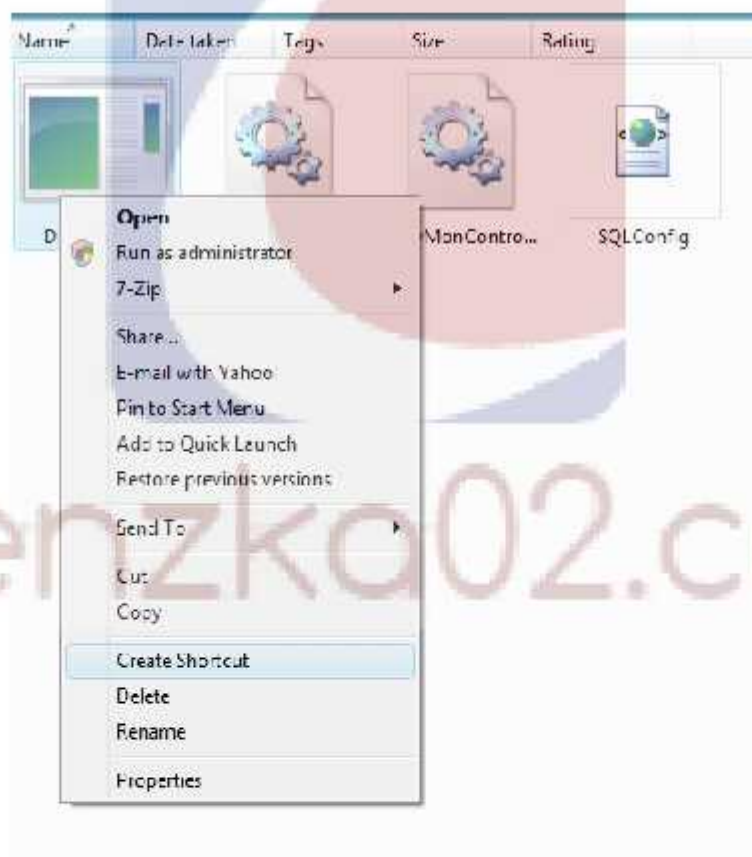


**Wallboard setup**

- 1) Open the Wallboard application folder.



- 2) Create a shortcut for the file DisplayForm.exe

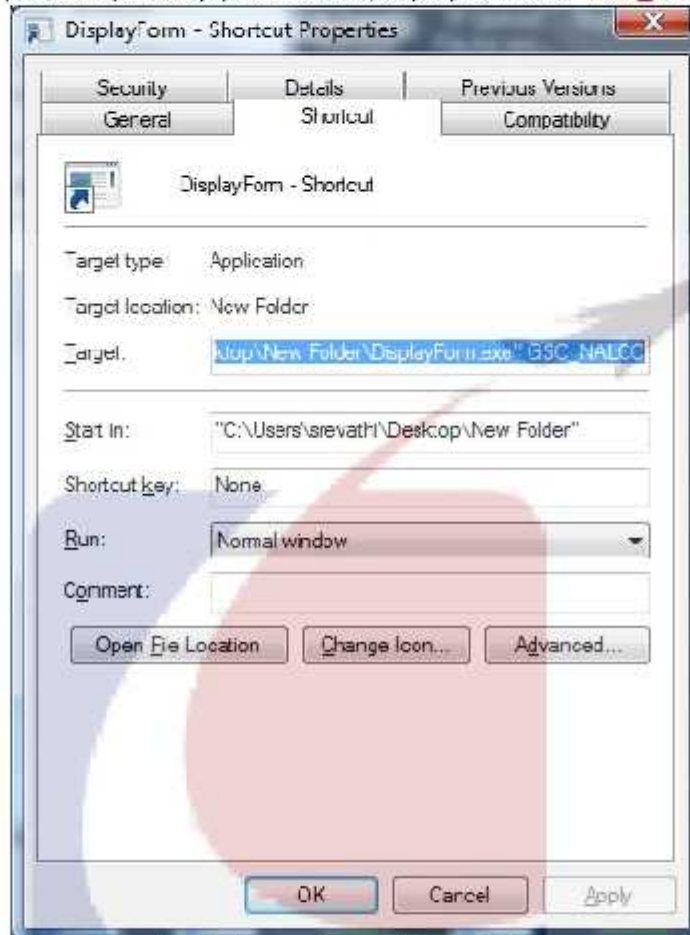


- 3) Please update the target with the program name.

"<Path>"<space><program name>

Eg: "C:\Users\srvathi\Desktop\New Folder\DisplayForm.exe" GSC\_NALCO

"C:\Users\srevathi\Desktop\New Folder\DisplayForm.exe" GSC\_RXM



- 4) Then copy the shortcut to the desktop. The wallboard application can be launched by double clicking the shortcut.

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5) Right click on the wallboard to display the wallboard options menu.



6) The first option on the menu will list all the available in the database for the wallboard application.



- 7) The second option on the menu allows the user to display the Queue Summary View and Queue Details View. The screen below shows the Queue Summary View.



- 8) The screen below shows the Queue Details View.





- 9) The third option will list all the displays available to the system. User can move the wallboard to a specific display via this option.



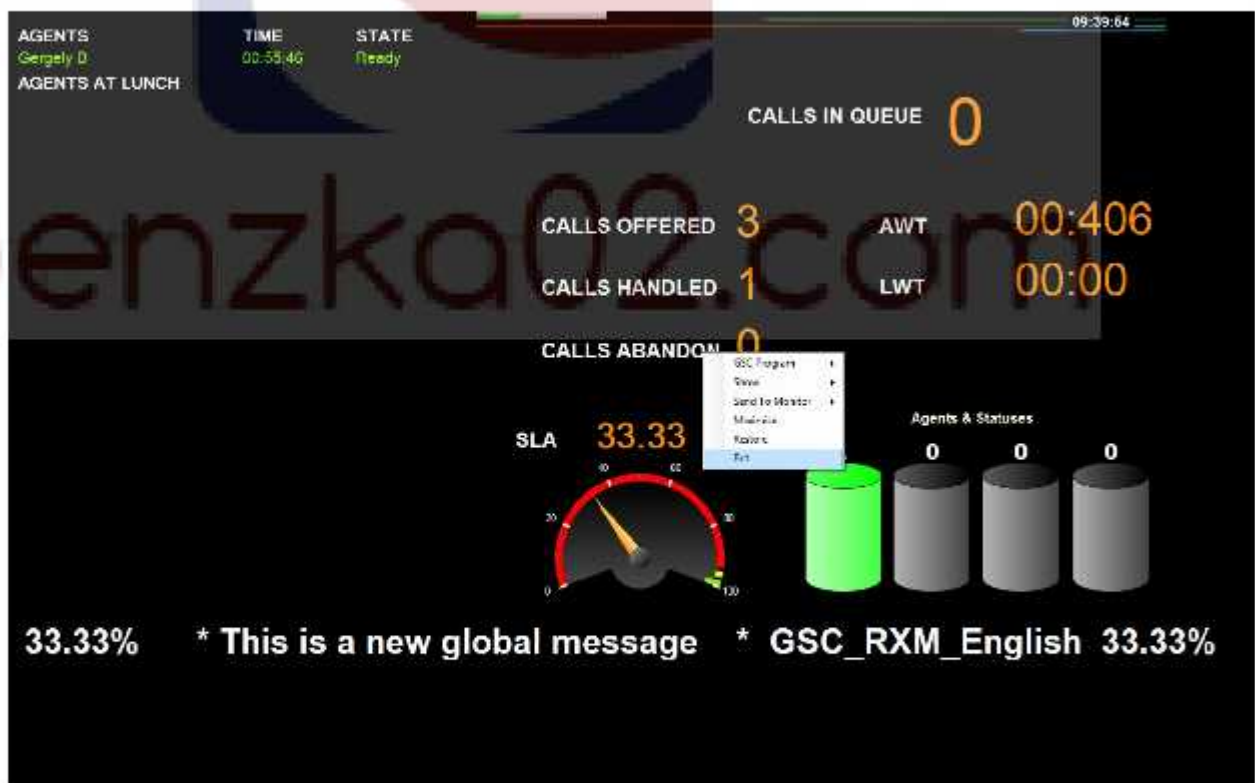
- 10) The fourth option will allow user to maximize the wallboard application to full screen.



11) The fifth option will restore the wallboard application to the normal size.



12) The last option will allow user to exit the application.





**How to read the wallboard application.**

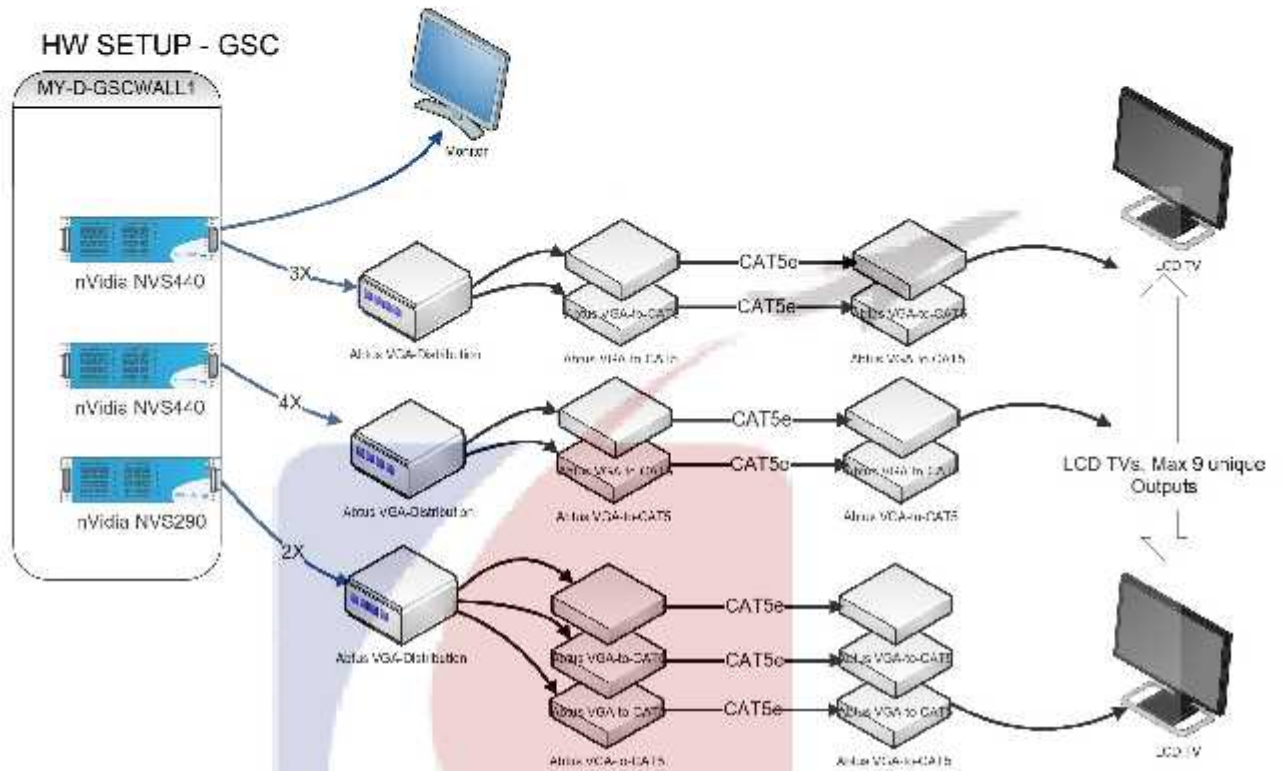
The wallboard application has two different views to present the information.

**I) Summary View**



- A => Displays the list of primary agents. The time shows the duration of the agent in that state while the state shows the agent status.
- B => Displays the foreign agents. The time shows the duration of the agent in that state while the state shows the agent status.
- C => Displays the list of agents on lunch break. The time shows how long they are on lunch break and the status displays their status.
- D => The ticker name message displays the SLA of each queue in the team. The ticker tape can also be used to display other messages as well.
- E => The gauge shows the SLA of the team. The value is also displayed above the gauge for readability.
- F => The cylinders is used to describe the agent count. The green cylinder shows number of agent ready.
- G => The blue cylinder shows the number of agent talking.
- H => The red cylinder shows the number of agent not ready.
- I => The yellow cylinder shows the number of agent on lunch break.
- J => **CALLS ABANDON** field shows the number of true abandon calls in the queue.
- K => **CALLS HANDLED** field shows the number of calls handled within SLA.
- L => **LWT** field shows the longest wait time for a call in the queue.
- M => **AWT** field shows the average wait time for a call in the queue.
- N => **CALLS OFFERED** field shows the number of calls offered to the queue.
- O => **CALLS IN QUEUE** field shows the number of calls waiting in queue.

**GSC Wallboard System Setup**



**FIGURE 1 – GSC HARDWARE SETUP**

The above diagram illustrates how the hardware is setup on one physical machine. nVidia NVS display adapters are used to provide multiple monitor output from a single computer. We are utilizing nVidia's desktop manager software to manage the multiple monitors. For optimal management, we recommend Ultramon by Real-Time Software. This provides a graphical overview of the monitors and is able to move any application to any monitor. This application is superior to nVidia's nView Desktop manager but costs USD\$39.95 per desktop.



**FIGURE 2 - ULTRAMON**



### LCD Screen Wiper

To prevent burn in, a separate executable is provided to ensure a white bar is swept across the screen to allow the LCD pixels to be completely discharged (turned off).

Three options can be configured: size of the sweep bar, speed and the color. White is recommended by most LCD experts. This application minimizes to the tray area.

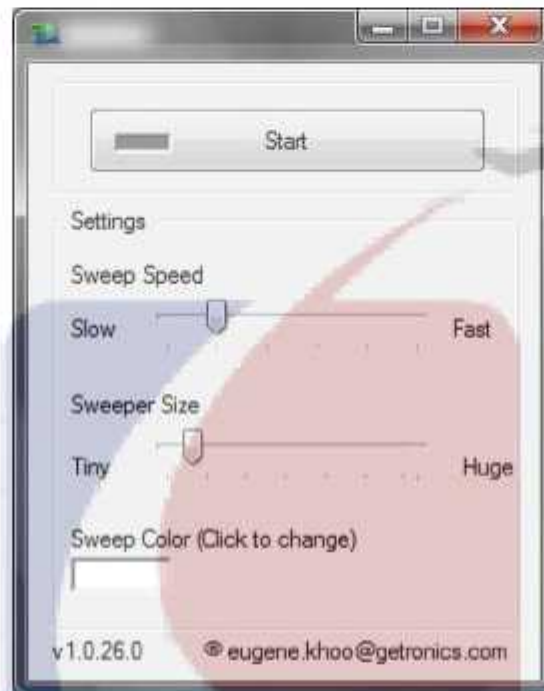
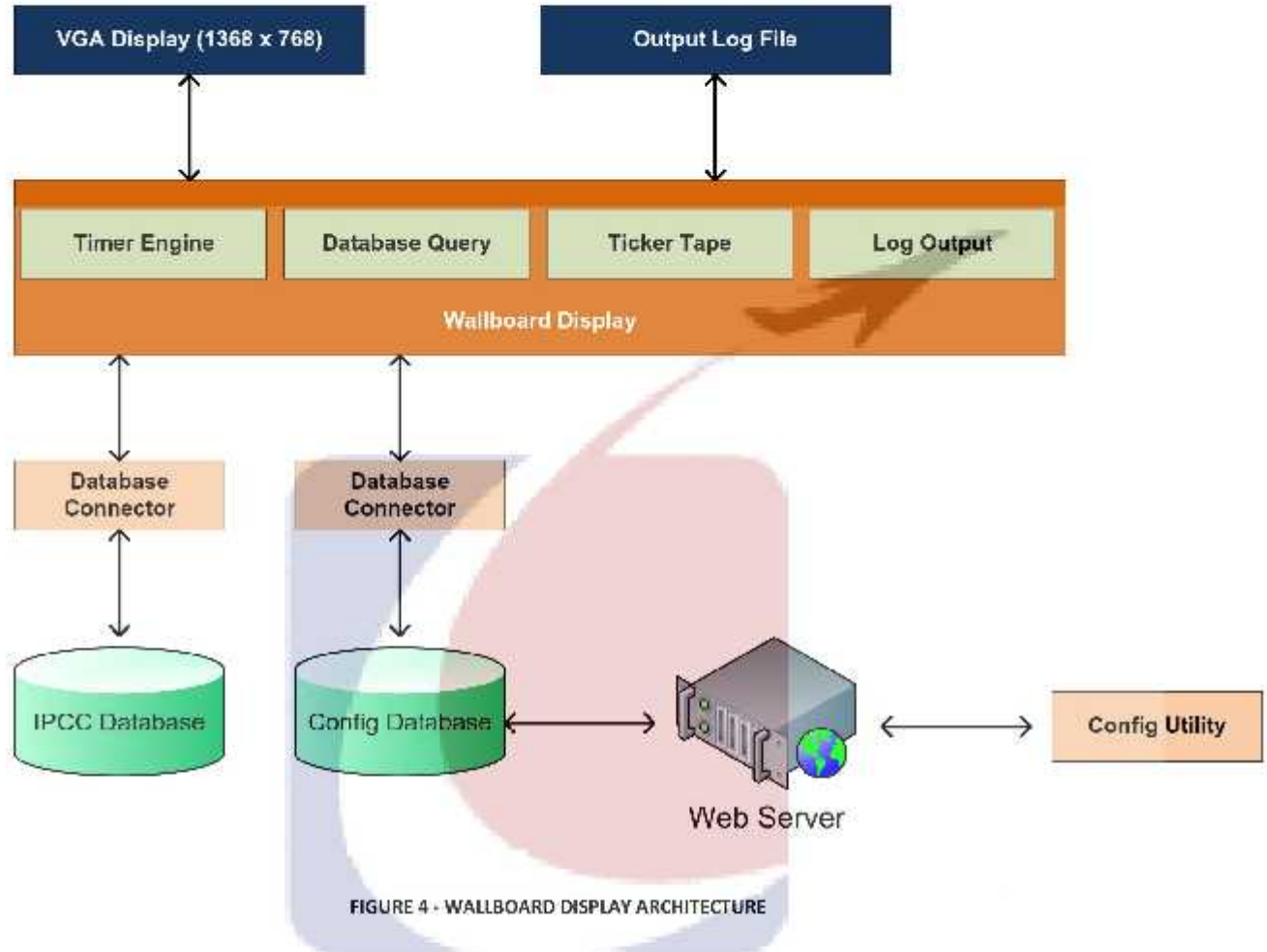


FIGURE 3 - LCD SCREEN SAVER APPLICATION

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**Wallboard Display Software**



**Architecture**

Completely C# on .NET 3.5 platform with full 64-bit compatibility. External DLL components are used for the gauge displays. Log files (when SLA thresholds are breached) are logged into a program specific folder.

The application is multi-threaded to ensure optimal performance when query performance is slow due to network issues.

Two database connectors are used, one connecting with the IPCC Report Database and the other connecting to the local SQL Express configuration database. Connection to the configuration database is only required at start-up. Connection to the IPCC database is required to be online and live at all times in order for the display to be updated. Data update speed is every 3 seconds. Network latency and response time from the SQL server may affect update performance. A network disconnect message and icon will be displayed if connection to the Report database is lost. Display is optimized for standard HD display units (720P). Additional display resolutions are not currently supported.

**Configuration**

Query configuration is stored in a local SQL Express database. This allows query for SLA, Agents, etc to be configured from the web control panel. Each Display can be configured for a specific program by right clicking the form and selecting the appropriate Program that has been pre-configured.



The configuration of each program is stored within this configuration database.

The web configuration also allows us to configure ticker tape news items.

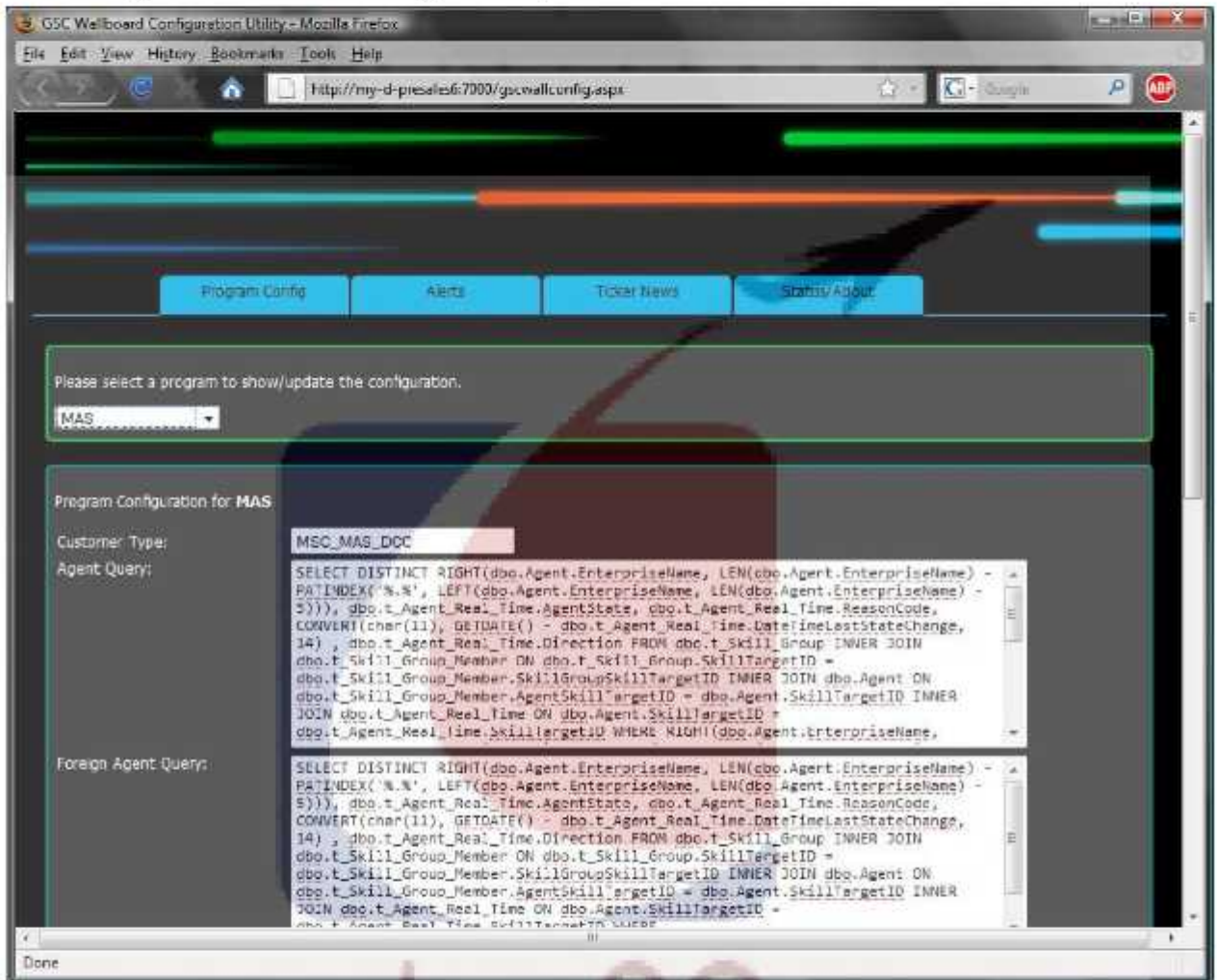


FIGURE 5 - WALLBOARD WEB CONFIG UTILITY

### System Requirements

The Wallboard display is designed to run on Microsoft XP or Vista but the following is the minimum recommended configuration which should be able to support up to 8 displays without issues.

- Windows Vista
- nVidia NVS series video cards (depending on number of displays required)
- 2Ghz Quad-core CPU or faster
- 3Gb RAM or higher

### Enhancements compared to Datascreen

- .NET based for easier maintenance and deployment.
- 32 and 64-bit binary due to utilization of the .NET 3.5 Framework.
- Graphical with two view options (can be switched on the fly from Web Administrator screen)
- Ticker Tape with custom news to be added by team leads and program managers



FIGURE 6 - SUMMARY VIEW



FIGURE 7 - DETAILED VIEW