

2009

easyITSM

...a Complete IT Service Management Suite

This Technical Whitepaper discusses the capabilities of a complete IT Service Management Suite that is targeted at the mid-Market. easyCMDB started as a Configuration Management/CMDB product and now incorporates Incident Management, Problem Management, Asset Management, Change Management and so much more.

RevelationData
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Table of Contents

easyCMDB OVERVIEW	1
SERVICE DESK	3
INCIDENT MANAGEMENT	4
PROBLEM MANAGEMENT	6
CHANGE MANAGEMENT.....	7
ASSET AND CONFIGURATION MANAGEMENT.....	8
RELEASE MANAGEMENT.....	10
SERVICE REQUEST MANAGEMENT	10
SERVICE KNOWLEDGE MANAGEMENT	10
END USER SELF-SERVICE	11
PERFORMANCE REPORTING	11
EVENT CALENDAR	12
MULTI-COMPANY CONFIGURATION (MULTI-TENANCY)	12
ARCHITECTURE.....	13
ABOUT TECH INVENTIONS LTD	14
ABOUT REVELATIONDATA	14

easyC**MDB** OVERVIEW

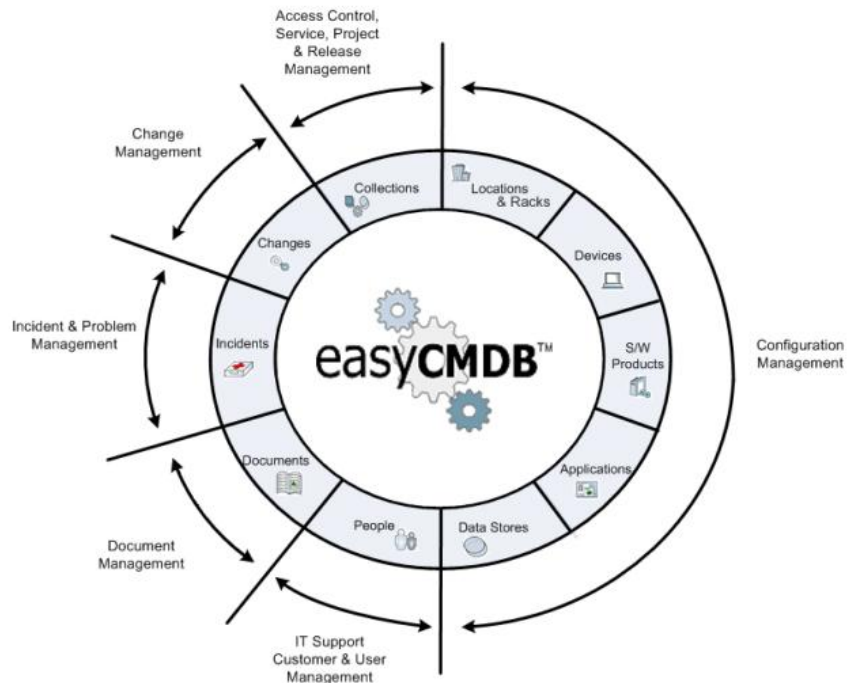
The core component of easyC**MDB** is the Configuration Management Database that provides the underlying foundation that binds and enables the process flow between Incident, Problem and Change Management. easyC**MDB** goes beyond being a repository of physical CI attributes. easyC**MDB** contains all the necessary components to provide an end to end service of the IT infrastructure.

Most IT systems are designed to serve specific application functions. easyC**MDB** combines these functions into one application, offering an out-of-box solution for Service Desk and IT Service Management, supporting ITIL disciplines.

100% web-based - its intuitive interface means you can be up and running with minimal delay and cost. Scalable to suit your enterprise requirements. Select only the modules your organization needs, or use the full suite.

easyC**MDB** is designed to provide a single, browser based window into IT services to allow proactive planning, deployment, management, and optimization across IT platforms. easyC**MDB** captures and aggregates practical knowledge about infrastructure, policies, processes, and best practices so IT professionals can build manageable systems and automate operations to reduce costs, improve application availability, and enhance service delivery.

easyC**MDB** will integrate with and extend these capabilities through the addition of key Service Management functionality, including End User Self-Service, Incident Management, Problem Management, Change Management, Asset and Configuration Management, and Reporting.



Built-in Support for Service Management Frameworks

One of the key motivations for shifting from a traditional Help Desk to a broader Service Desk approach is to improve the delivery of services to end users. While technology has a clear role to play, meeting this challenge is clearly not something technology alone can solve. In the end, IT professionals support and deliver services. To optimize IT services, organizations often utilize their own process based guidance from service management frameworks such as ITIL. Automation, integration and customization of these service management process workflows are a key factor in success.

easyCMDB is designed with key process workflows that support ITIL built directly into the product. easyCMDB will provide direct support for key processes for Incident, Problem, Asset/Configuration and Change management, ensuring that each action taken in these areas complies with the best practices recommended in ITIL. As each implementation of the ITIL framework is unique to the processes, technology, and structure of the organization concerned, easyCMDB will deliver the ability to easily customize workflows and processes.

easyCMDB has proven to be an invaluable tool in gaining ISO 20000 / BS 15000 accreditation, and will greatly enhance your chances of a successful ITIL implementation.

SERVICE DESK

The Service Desk is the first point of contact for users and clients to report Incidents relating to your IT infrastructure.

The objectives of the Service Desk are:

- Facilitate the restoration of normal operational service with minimal impact on customers with agreed SLA levels and business priorities.
- Keeping customers informed on status and progress
- Monitoring SLA's
- Coordinating second and third level support
- Closing Incidents
- Identifying Problems

Dashboard	Provides the Service Desk with a real-time snapshot of Incident status, and the Active Log enables quick identification of existing Known Errors and Problems to identify matching Incidents.
Email interface	Provides customizable e-mail notifications and two-way updates on new Incidents, or Changes or when status Changes occur.
Self Service Portal	Provides a quick method for your customers to access, view, create and edit their own Incident and Change records and can be fully customized to match your existing Intranet look & feel.
Event Calendar	Incidents will appear on the Event Calendar on the day that they occurred and were resolved. This feature provides a view of Incident history, which can be viewed together with Changes to detect correlations for root cause analysis.
Knowledgebase	A single unified search engine designed to help Service Desk analysts find answers quickly and accurately within the knowledgebase. The search functionality includes the ability to search the content of documents and files - not only names.
Performance dashboards and trending reports	Built-in performance dashboards and trending reports for tracking of team and overall progress in relation to both Incidents and performance goals.
SLA Management	Configurable thresholds based on Service Level Agreements. Automatic notifications ensure action is taken before it is too late, allowing the service desk to be proactive vs. reactive.
User Interface	The powerful visualization enables the service desk analyst to quickly navigate through the IT infrastructure that is supported. Drill down functionality helps identify all Configuration items and services it's dependent on. Helping to quickly identify root cause analysis.

INCIDENT MANAGEMENT

easyCMBDB will support the Incident Management process by providing out-of-the-box implementation of core ITIL functionality. The product will help reduce call handling time by providing:

- Instant access to related Configuration, asset and system health information.
- The ability to map the Service Desk system to the business with user-defined queues, service level metrics, and escalation policies.
- Automatic Incident creation and routing, from services monitored by external System Management tools, enabling the tracking of resolution of one-time and recurring Incidents using Problem records.

Incident Management: The Process responsible for managing the Lifecycle of all Incidents. The primary Objective of Incident Management is to return the IT Service to Users as quickly as possible.

Incidents in easyCMBDB are divided into Faults, Known Errors, Service Requests and Problems. Each of these Incident types has similar properties and can be assigned to Support Groups or individuals for resolution. Problems represent faults with your infrastructure that have no known resolution. Known Errors represent a fault with a known work-around. A Service Request represents a request that has not been caused by an infrastructure fault (e.g. Password Reset). A Fault will typically either get resolved or be Changed to a Problem record. New Incidents can be compared with existing Incidents to determine if it is related to a Known Error or Problem.

Incident classification, priority, assignment and vendor contact details can be quickly determined by linking the Incident with a pre-defined Service record. A Service also defines the required response and resolution time thresholds based on the Service Level Agreement (SLA).

Incidents may be linked to the CIs that were affected, and the people involved in implementing the resolution. An Incident may result in the generation of a Change Request, which can be linked to the Incident.

An Incident may be linked to another related Incident, for example a repeat Fault, or associated Known Error or Problem.

Tasks may be recorded against Incidents detailing what was done, when and by whom. Each Task may have its own assignment, notes and link to Documents.

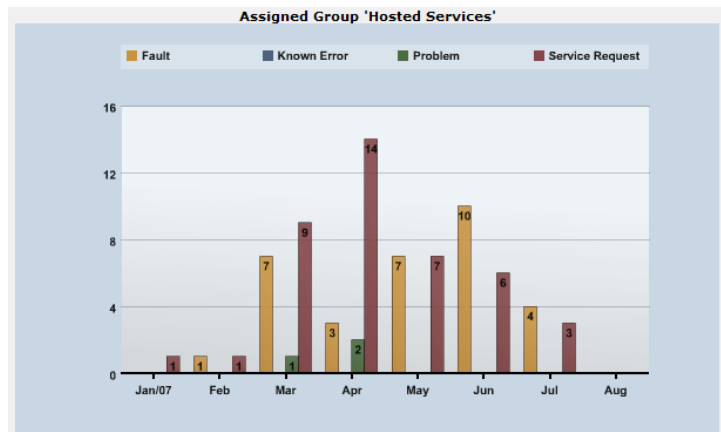
Incident Templates provide the ability to create Service Request templates including all related Tasks, CI linkages and Documents. New Incidents created based on a Template will automatically inherit all relationships, assignments and settings of the Template.

Each Incident has its own resolution deadline calculated according to the Service SLA and priority. Automated Actions can be configured to update the Incident, including escalating to a support group or individual.

Flexible reports output Incident details and statistical information in Acrobat PDF format based on user-defined search criteria.

easyCMDB can integrate with an external Incident Management system via web services to provide real-time synchronization.

The easyCMDB Graphs & Charts function provides numerous ways to visualize your historical data to establish trends.



PROBLEM MANAGEMENT

In easyCMBDB, a user will be able to easily create a new Problem record from an Incident or attach an Incident to an existing Problem. An action log will be used to capture the actions the IT team has undertaken to diagnose and resolve the Problem.

Analysts will be able to mark Problem records as known errors to make them more visible to other analysts trying to resolve Incidents. This will reduce the amount of time spent investigating errors since an analyst will be able to simply link Incidents to a Problem, for example, linking multiple network outage Incidents to a network switch being unavailable.

Problem Management: The Process responsible for managing the Lifecycle of all Problems. The primary Objectives of Problem Management are to prevent Incidents from happening, and to minimize the Impact of Incidents that cannot be prevented.

A Problem represents a fault in your infrastructure for which there is no [current] resolution. In easyCMBDB, Problem records are a type of Incident and handled in similar fashion to Faults and Known Errors. A Problem may be Changed to a Known Error if a work-around is discovered, or set to Resolved status if a resolution is forthcoming.

Problem management is tightly integrated with Incident management in easyCMBDB, however may be separately queried and reported on.

Resolution of a Problem record will automatically resolve all associated Fault records.

Problem records can be searched during creation of Incidents to determine if a match exists.

The Active Log provides a listing of Known Errors and Problems that can be referenced prior to creating new Incidents. The new Incident can be directly linked to a Known Error or Problem and inherit its information.

The FAQ database can be used to build up a knowledge base of common questions and answers to facilitate Problem diagnosis.

CHANGE MANAGEMENT

easyCMBDB will support the Change Management process by:

- Accurately creating Requests for Change (RFCs) and linking to affected Configuration Items (CIs).
- Initiating RFCs directly from Incidents, filling in RFC information quickly using pre-defined templates for common types of RFCs.
- Providing configurable review stages and manual or automatic activities that give structure to IT processes.
- Allowing measurement of the performance and effectiveness of the process through process-specific reports.

Change Management: The Process responsible for controlling the Lifecycle of all Changes. The primary objective of Change Management is to enable beneficial Changes to be made, with minimum disruption to IT Services.

Change records may be created in easyCMBDB and linked to the CIs they affect.

Multi-level CAB definition is supported, with the choice of a system-wide CAB in addition to CAB members linked to individual CIs, plus CAB members associated at Project level.

Change classification, priority and assignment can be assigned by linking the Change with a pre-defined Project record. A Project can also override the default CAB with its own and be linked to all CIs in use by the Project.

A Change can be linked to an Incident and/or another Change if required. Successful implementation of a Change will automatically resolve any associated Incident record.

Changes are identified by a unique Change Request Number, which can either be entered or generated by easyCMBDB using a user-defined format.

Tasks may be recorded against Changes detailing what was done, when and by whom. Each Task may have its own assignment, notes and link to Documents.

A Change Request Number and note can be entered when saving any CI record, to provide an instant linkage to the Change.

Changes will appear on the Event Calendar on the day they are scheduled and implemented. This allows a forward schedule of Changes to be generated or Change history to be analyzed.

Change Templates provide the ability to create recurring Change definitions including all related Tasks, CI linkages and Documents. New Changes created based on a Template will automatically inherit all relationships, assignments and settings of the Template.

Recurring Changes can be created automatically via a Job Scheduler using the easyCMBDB Web Service.

Flexible reports output Change record details and statistical information in Acrobat PDF format based on user-defined search criteria.

ASSET AND CONFIGURATION MANAGEMENT

easyCMDB will provide workflow to help IT professionals manage the lifecycle of assets from procurement to disposal. easyCMDB provides the ability to relate CIs to Incidents, RFCs, Problems, and Known Errors, providing integrated data that gives not just a clear and accurate picture of actual inventory of software, hardware, and application component assets, but how they relate to other key components of IT services.

easyCMDB includes CMDB visualization and customizable levels of component tracking, providing a clear view into the Configuration and the right level of granularity of information.

All Configuration items in easyCMDB (Locations, Racks, Networks, Devices, Software Products, Applications, Data Stores, Documents and People) have a number of configurable attributes specific to the CI type. Attributes range from asset identification, network Configuration, business classification, support details to financial information.

Both logical and physical mappings are possible, meaning you can determine the impact on both physical and logical infrastructure before implementing Change to mitigate risk.

Many attribute values are customizable and can be easily extended. Modifications to CI attributes can be associated with a Change Request and saved as a new version of the CI. This provides a full audit trail of all Changes made in easyCMDB.

One of easyCMDB's key strengths is its relationship capability. CIs may be linked together to form relationships in just about any direction. There are many relationship types pre-defined which may be extended. For example 'Parent of', 'Used by', 'Connected to' are relationship types. Relationships can be viewed in either direction and the query function provides a 'data mining' capability.

CIs can also be linked to Incidents and Change records. This allows all recorded Faults, Known Errors or Problems for a given CI to be easily identified, and Change Requests that have impacted the CI.

Software Licensing information can be uploaded into easyCMDB, which will then keep track of the number of installations based on the relationships formed. easyCMDB will then highlight any product whose install base exceeds the number of licenses.

Documentation can be uploaded into easyCMDB and is treated as another CI type. This means a single document may be linked to multiple CIs and serves as a powerful knowledge base. Locating a document can then be achieved by either going to the document directly or via the CI it is associated with.

The Data Import Wizard enables refreshing of CI Configuration from another source if required. The merge feature enables data from an import file to be merged with the CI in easyCMDB based on a Name match. This enables the results of a periodic physical audit to be uploaded when necessary to baseline the Configuration.

The Collections feature enables groups of CIs to be defined to represent Services, Releases, Environments, and Projects to further document your infrastructure.

*Configuration Management:
The Process responsible for maintaining information about Configuration Items required to deliver an IT Service, including their Relationships. This information is managed throughout the Lifecycle of the CI. Configuration Management is part of an overall Service Asset and Configuration Management (SACM) Process.*

Granular user security in easyCMBDB allows delegated administration of CIs based on ownership or Access Control Group, to partition the Configuration maintenance responsibility as required.

Configurations can be output in CSV or PDF format from multiple areas in easyCMBDB. The flexible output options enable only the desired information and CIs to be included.

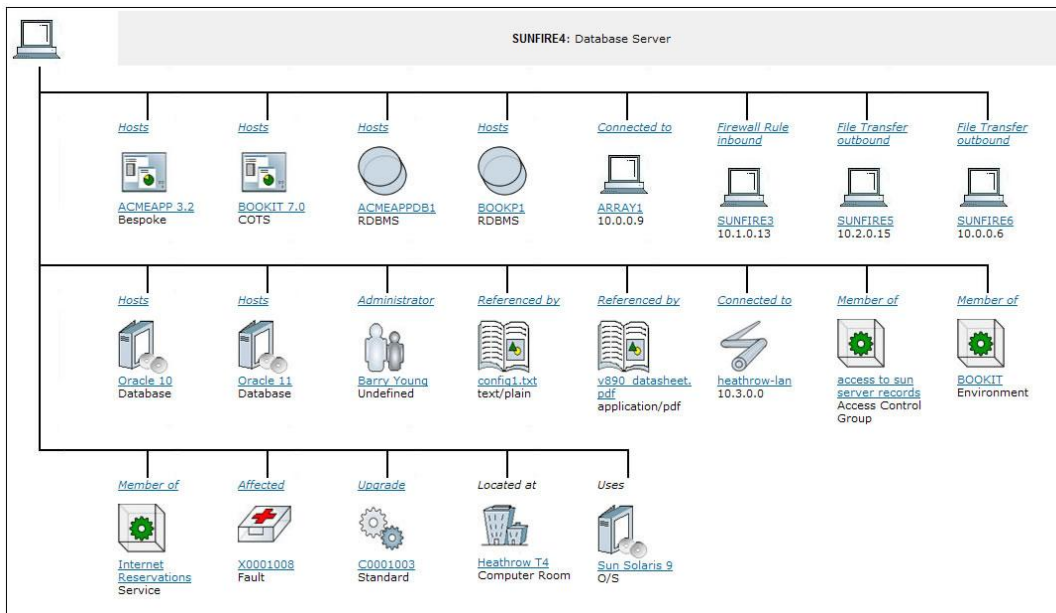
For the finance department, easyCMBDB can provide depreciation book values based on either straight line or diminishing value methods.

CI data can be partitioned within a single easyCMBDB database by setting up multiple companies. This allows each company to have a unique CI dataset and users can be restricted to a single company view or across all companies. The Shared Infrastructure company can be used to define CIs that are common across all companies.

The CMDB can be automatically updated and synchronized via a 3rd party discovery tool using the easyCMBDB Web Service and/or batch CSV upload. The Relationship Navigator enables you to see your CI relationships in graphical form, and drill-down to an infinite number of levels!

The Relationship Navigator allows you to explore Services and their linkages to other records graphically.

Building relationships between your CIs is simple and flexible in easyCMBDB. The Relationship Navigator produces instant diagrams that you can browse with the click of your mouse to multiple levels.



- Visualize your CI relationships
- Expand the diagram by clicking on any CI image to an infinite number of levels
- Edit the CI record
- Omit specific CI types from the diagram
- Replace images with your own and have different images per CI type
- Edit the CI relationship detail

RELEASE MANAGEMENT

A Release in easyCMBDB is defined by a Collection whose type is Release.

Releases are directly associated with a Project and include the ability to record key deployment dates, CPU and Disk impact, outage requirement and more.

A Release may be linked to all CIs that make up the Release.

Release Management is tightly integrated to Change Management by providing a direct link to a Release during CR creation.

The Release can be included in a PDF report, which will include all CI associations.

SERVICE REQUEST MANAGEMENT

Services in easyCMBDB are divided into Business Services and IT Services. A Business Service may contain one or more IT Services. An IT Service may belong to one or more Business Services.

A Business Service is basically a grouping mechanism for IT Services and contains no direct linkage to any Configuration Items or SLAs. Both Business Services and IT Services are defined as Collections in easyCMBDB of types "Business Service" and "Service" respectively.

The following Business Services are supplied with a default install of easyCMBDB:

- Application Services
- IT Client Services
- Telecommunication Services
- Server Admin Services
- Networking Services
- Software Development Services

SLA metrics can be stored against the Service definition and are used to automatically calculate Incident response and resolution deadlines.

A range of reports can be produced to output the Service Catalog and listings of open Known Errors & Problems affecting a Service plus other variations.

SERVICE KNOWLEDGE MANAGEMENT

easyCMBDB provides a single unified search engine designed to help Service Desk analysts find answers quickly and accurately within the knowledgebase. The search functionality includes the ability to search, not only file names, but the content of documents and files.

The FAQ database can be used to build up a knowledge base of common questions and answers to facilitate Problem diagnosis.

Documentation can be uploaded into easyCMBDB and is treated as another CI type. This means a single document may be linked to multiple CIs and serves as a powerful knowledge base. Locating a document can then be achieved by either going to the document directly or via the CI it is associated with.

END USER SELF-SERVICE

easyCMBDB provides an End User Self-Service Portal with key capabilities including:

- A centralized, easy to use web interface for end users to get information on the health of their services, relevant announcements from IT and the status of their requests.
- Reduction in calls to the Service Desk by enabling end users to resolve their own Incidents through the ability to search the knowledge base and consult a list of common issues and resolutions.
- Reduction in calls to the Service Desk by enabling end users to fulfill their own requests, such as a request to install authorized applications software.

End User Self-Service Portal: a centralized, easy-to-use interface for users to obtain information, resolve Incidents, and fulfill requests themselves, without requiring the intervention of Service Desk analysts, resulting in a reduction in calls to the Service Desk.

The Self-Service Portal provides a quick method for your customers to create Incident records and can be fully customized to match your existing Intranet look & feel.

In addition, users have the option of sending email directly to easyCMBDB in order to create Incident records. Technicians can automatically update Incident and task notes by Cc'ing easyCMBDB when responding to the customer via e-mail.

These methods are designed to reduce the number of calls to your Service Desk by providing self-service alternatives.

It is possible to automate the creation of Incidents via the Web Service, which means your existing event management systems can be integrated with easyCMBDB.

PERFORMANCE REPORTING

easyCMBDB's integrated data and reporting capabilities will directly support Service Improvement Programs. Reporting capabilities span Incident, Problem, Change, Configuration and asset management. Asset, Change history, inventory, and comparison reporting are built in to the product. Reporting features include trend reports, ad-hoc reporting, performance metrics, dashboards, all integrated across the easyCMBDB database.

EVENT CALENDAR

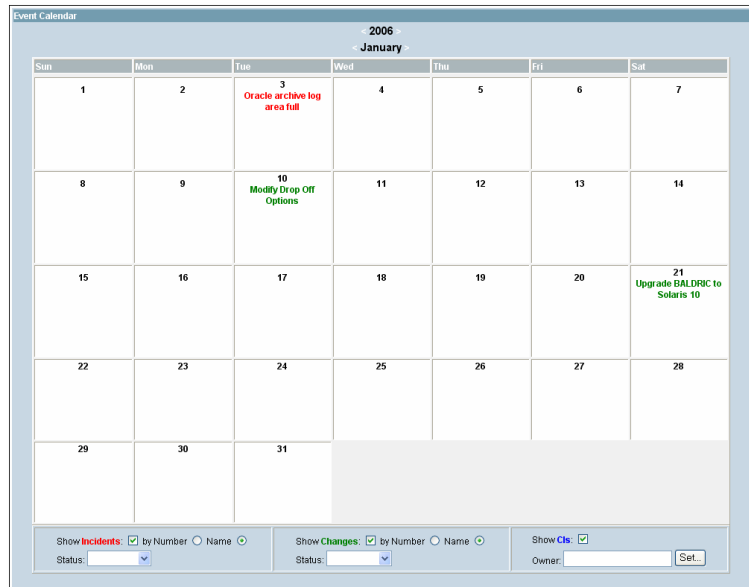
The Event Calendar can be used to plot Change Requests on the Calendar in real-time and is useful for forward-planning implementation of Changes.

The Event Calendar can be configured to plot Changes, Incidents and Configuration Items dates.

The Event Calendar example shows two Change Requests (green) and one Incident (red) falling within the month of January.

An item on the calendar may be edited by clicking on it. You can go forward or back in time by clicking on the year and month arrows.

Entries may be filtered according to their status or ownership and either ID or Name can be displayed on the calendar.



MULTI-COMPANY CONFIGURATION (MULTI-TENANCY)

It is possible to partition your CMDB data by defining multiple companies. This might be used to represent your customer or regional office data. Each company has a unique dataset and it is possible to switch between companies without logging out and back into easyCMDB.

It is possible to restrict access to company data in two ways:

1. Restrict user from switching companies completely
2. Restrict user from switching or viewing data for a specific company.

When creating a new user you are required to select their Assigned Company. This determines what dataset they are permitted to see if they have login access to easyCMDB.

In addition, you can turn off the Company Switching option which will hide the company drop-down list at the top of the screen. If a user is permitted to log into easyCMDB and to switch companies, the Access Control function can be used to restrict access to certain companies.

ARCHITECTURE

The core easyCMDB application has been built using the standard L.A.M.P technology stack (Linux, Apache, MySQL, and PHP). While primarily developed on a Linux platform, it is also supported on Microsoft Windows and Solaris (x86 & SPARC). On Windows, Microsoft IIS can be used instead of Apache.

The underlying MySQL database has been loosely coupled so that other database products can be used in place of MySQL. Support for Microsoft SQL is scheduled for Q1/2 2009. We ensure that our customers do not require any specific knowledge of the underlying database product by providing an intuitive front-end for performing database functions such as creation, backup & recovery, optimization and upgrades.

For integration, the PHP NuSOAP library is used to implement a SOAP server with standard WSDL 1.1 definitions. This is complimented by Perl scripts that use the SOAP::Lite package for client interaction, which enables scripts to be placed anywhere on the network to invoke web services remotely and update the CMDB.

A valid user ID and password must be included in all SOAP communication and is subject to user privileges defined in the database.

Optional Visual Basic scripts are provided to conduct WMI-based discovery of MS Windows machines for obtaining software inventories. There is also integration capability for other discovery tools including Nmap.

Direct ODBC access to the database enables read-only queries and use of 3rd party report writers, such as Crystal Reports.

SMTP mail libraries are used for automatic outbound e-mail notification and POP3 for incoming e-mail instructions such as creation of Incident records, and updating of CI notes.

Full integration with Microsoft Active Directory or other V3 LDAP directory is provided include password authentication, and full synchronization of user and computer entries with easyCMDB. Flexible attribute mapping capability is also provided.

All application communication between client and browser can be encrypted using SLL over HTTP, and storage of sensitive attributes in the CMDB can be optionally encrypted with user password validation when viewed.

A dedicated server or LPAR is recommended for easyCMDB with minimum 2GB RAM, 1 x CPU and 100 GB disk to support up to 50 users. Please contact RevelationData to discuss the appropriate configurations for larger operating environments.

ABOUT TECH INVENTIONS LTD

Tech Inventions Limited has over 22 years IT experience in many sectors including government, telecommunications, finance, airlines and small businesses in multiple countries helping companies to manage their IT infrastructure & operations. We've learned first-hand how important it is for IT departments to have accurate information about the technology they support. The last thing you need is a complex tool to manage a complex environment so easyCMDB was born.

easyCMDB is our flagship product and we firmly believe it should be part of any organizations's arsenal that is serious about having the best tool for the job when it comes to IT service management. We spend 100% of our time on easyCMDB so you have our full attention at all times. easyCMDB was released in February 2006 and has grown from a CMDB solution to a fully-fledged ITIL service management tool supporting all major ITIL disciplines.

Tech Inventions Limited is a privately owned company registered in Auckland, New Zealand. From here we run all easyCMDB development and support customers world-wide. The development of easyCMDB is on-going, and our customers have the benefit of seeing a steady flow of enhancements, many of which are suggestions from the customers themselves.

We are actively forming partnerships with other companies world-wide to provide local sales and support for easyCMDB in their region.

ABOUT REVELATIONDATA

RevelationData LLC is the US Reseller of the easyCMDB product and other complimentary ITSM solutions. We offer years of experience in the Service Desk and IT industry and the support you need to enhance your business operations, and productivity. RevelationData's goal is to ensure that your implementation is fast and easy, and configured to your specific requirements. Whether you need a one-hour consultation to determine the best software solution for your firm, or more extensive consulting, RevelationData can help.

Assessment

RevelationData's solutions include Service Desk assessments, products, systems integration and consulting services to assist you in providing support to your customers and internal staff.

Implementation

RevelationData has built a tremendous track record, of very successful implementations. These implementations have always followed a guiding principle to provide immediate value to the customer while also ensuring that we achieve the highest level of expectations.

Training

Implementing the software and leaving the customer to their own devices is NOT an option at RevelationData.

Training is provided as part of our standard offering. Once the Configuration stage of the implementation has been achieved RevelationData ensures that users are well equipped to use our products and that they get the maximum benefit out of the features.