CIEMS Solutions

Community Information, Event Management and Safety.

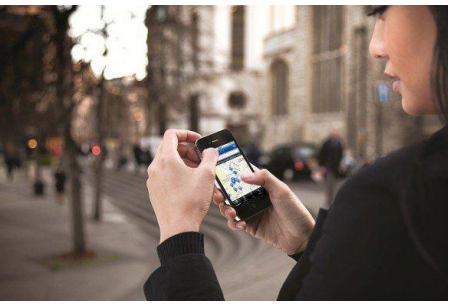
WiFi Access Solution

The CIEMS Solution is developed as a collaborative project, based on community involvement, asset utilisation and Public Private Partnerships within the community. The project builds on ICT infrastructure investment by local government by integrating existing services and infrastructure provided by other public and private organisations in the community. The CIEMS Solution focuses on the application of WiFi connectivity to deliver information to the community as a whole and provide an ICT platform over which a wide range of services can be delivered.

The key requirements for a WiFi installation are a well designed network and a manageable delivery platform. These core components provide and control access to the wireless network and in turn, access to information provided from within the local network and from the Internet.

Providers of WiFi HotSpots such as, Internet Cafes, accommodation providers and the hospitality industry have in the past been the key stakeholders in delivery of WiFi services and focal points for Internet users. Increasingly, retail and tourist precincts along with community, health and education facilities are now also expected to offer wireless Internet access and relevant information on services available within the community.

The CIEMS WiFi Information Solutions makes the task of deploying and managing a diverse wireless and wired network both achievable and economically viable for local government and private organisations.











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A collaborative and comprehensive wireless management solution for local government, communities and private organisations.

WiFi Information Networks

Imagine a wireless service capable of delivering Rich Media including streaming video, interactive maps, event information and product and service offers available from nearby vendors. We have seen much discussion about these types of services especially in the context of 3G and 4G carrier networks, but the cost of access to those commercial networks and the congestion being caused by rapid consumer take-up and peak period demand are forcing consumers to look at WiFi options.

The power and flexibility of the CIEMS WiFi Solution is drawn from the centralised DuxCommander management and administration suite hosted within DuxTel's secure data centre, delivering automated configuration and device management via dynamic Virtual Private Network techniques between the device deployed in the field and the DuxCommander servers at the data centre.

Service providers can deploy a "plug and play" WiFi device to a suitable location within their environment such as a visitor information centre, community hall or retail complex, and immediately enter the WiFi Internet and information services.

Features of a WiFi Network

The CIEMS Solution delivers a range of services to users and provides a wealth of information through interactive communications.

Users are able to access the Internet in a controlled environment for general information, email and social media content without the need for carrier based Internet contracts. Open and free access to stakeholder sites and community services can be provided and tailored to individual sites or regions.

Optional free and subscribed Internet access can be provided over the same wireless network with multiple SSID branding and online secure payment systems accessed for service delivery or commercialisation of the network.

Service providers are able to provide targeted site specific information and communicate directly with end users in real time. User engagement and promotional opportunities are limited only by imagination.

User access and marketing intelligence gathered anonymously and through subscribed services is provided through a powerful set of integrated analytic and processing tools giving geospatial and behavioural information for future development of services and infrastructure by the various network stakeholders.

WiFi Network Applications

The demand for WiFi Services is being driven by the ever increasing use of hand held smart devices and the changing nature of social interaction and communication. The exponential growth in handsets and users is only matched by developers creating Apps for just about anything you can think of.

Many device and web Apps require high bandwidth connectivity to operate effectively so that images streaming over the Internet are of high quality and seamless in delivery. Apps to help keep you entertained, communicate with your friends, find shops, restaurants or hotels are better supported in a WiFi environment.

Site and regional information can be provided directly over the private wireless networks via WiFi devices enabling network providers to deliver to users information free of transmission costs. Freely accessible Community and Tourism information is particularly well suited to WiFi delivery and are increasingly sort out by WiFi users.

Optic Fibre and the NBN

The CIEMS project delivers to the community a high speed delivery platform which maximises the opportunity the NBN is bringing to Australia by extending the fixed Optic Fibre network to the millions of users accessing the Internet over wireless hand held Smart devices.

Optic Fibre enables high level communication services for both local government and business. The NBN will provide future proof communications infrastructure to nearly every home and business in the country. There is however an even greater demand for mobility in communications and it is this fibre infrastructure which will benefit most from last mile wireless connectivity for users.

To fully benefit from the investment being made in fibre by NBN, as well as other public and private organisations, the ability to deliver high bandwidth Internet ubiquitously to the community can be achieved through the integration of WiFi services and suitable hardware and management platforms.

The collaborative CIEMS approach to deployment of WiFi networks supports better asset utilisation by using the high bandwidth backhaul capabilities of optic fibre. Sharing of services for Internet, Video, Voice and Data over multiple close proximity WiFi access Points via fibre connections is now economically feasible.

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The key requirements for a WiFi Communications Network are a well designed high capacity network with a flexible and manageable delivery platform.

Wifi Internet Hotspot Solution

The key requirements for a WiFi installation are a well designed high capacity robust network and a manageable delivery platform. These core components provide and control of access to the wireless network and in turn, the access to information provided from within the local network and from the Internet.

The network must be easily maintained, have effective and efficient processes and above all be user friendly. There are many examples of poorly performing networks, inconsistent access and outdated information from the myriad of HotSpot Internet Service Providers operating around the world. Indeed it has almost become expected that WiFi networks in Australia are unreliable. The challenge is in identifying a solution that provides the best management systems and equipment whilst maintaining cost effective delivery and value adding services for HotSpot managers and users.

DuxCommander

The DuxCommander solution from DuxTel provides this Network Management solution. The DuxCommander system has been developed with HotSpot WiFi access as a core function but also addresses all key network management functions for Internet Service Providers (ISP) and Web Content Managers.

The DuxCommander software application has matured through many years of development and application and along with the use of cost effective and reliable hardware solutions has provided the base for the deployment of the Community WiFi Network.

The DuxTel Commander system provides a flexible and powerful solution for Internet access for Communities, Cafés, Accommodation and other Hospitality Providers.

DuxTel Internet Commander Administration suite presents a modular approach to network services delivery for a range of applications and is particularly well suited to the Community WiFi Information delivery model.

The DuxTel Commander is currently in use at several hundred locations throughout all states of Australia, under many independent brands. The DuxCommander Suite provides management of Internet access for ISPs and private accommodation and hospitality business servicing many thousands of users nationally every day.

The DuxTel solution is delivered as a white-label product that can be rebranded by resellers and partners. Integration across networks is achievable allowing regional and national networks to be developed, sharing of information and allowing network user migration.

Network Design and Deployment

Combined with expertise from the local suppliers of IT services, Security, Website Developers and local government a collaborative approach to deployment of WiFi networks can be achieved. Network design and layout is developed to integrate networks and broaden the service areas extending coverage and user access. A governance model is developed to manage the integration of existing networks; maintenance and access protocols are implemented to ensure individual responsibilities are understood and enabled within a collaborative environment.

ICT service partners have a critical part to play in the successful deployment and operation of a Community WiFi Information Network. The establishment of a project steering group consisting key community stakeholders will work with CIEMS project managers to deliver a sophisticated and flexible network which will bring rewards and benefits to all sectors of the community.

Another important aspect of any communications network is the physical infrastructure on which the communications devices are to be installed. Access to buildings and poles overlooking the areas where WiFi or Safety Cameras are desired is needed to provide power and a vantage point.

Building new infrastructure can be costly and time consuming. The collaborative approach of this Community Information Network model encourages stakeholders to provide access to appropriate buildings and outdoor structures and supports greater utilisation of assets and lowers the cost of deployment to the community.

Information Delivery

Delivery of Information over WiFi Networks is enabled through standard Internet Web Sites and browser technologies. The tasks of web design and content management are managed by the owners of these web sites and other stakeholders.

The Community Information Network provides the portal for users to find the information they seek by guiding users to the correct Wireless Network and delivering location specific information tailored to the environment.

The framework created by the CIEMS project developers for landing pages and site redirection makes it very simple for individual communities and organisations to control the information provided within the confines of the freely accessible websites and to landing pages prior to general Internet access by network users.

The strength of CIEMS WiFi Information delivery is in its capacity as a proximity communications device to allow location specific information to be delivered alongside more general community or services information over the same infrastructure.

Branding of is an important part of an organisations image and the use of brands in identifing Available Wireless Networks leading users to the correct information portal is possible though the support of multiple wireless networks over the same set of wireless infrastructure. This capacity permits the collaborative approach to infrastructure untilisation which is a cornerstone of the CIEMS project.

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CIEMS - A collaborative and comprehensive information and management solution for local communities.

What is it?

The CIEMS project utilises communication networks based on global WiFi Internet standards to establish interactive communication between all members of the community and visitors over Smart handheld portable WiFi enabled devices.

Why do we need CIEMS?

The applications for WiFi enabled Smartphones and Tablets are growing globally. Mobile web browsing will become increasingly important with people calling for easy access to information on demand with high speed reliable access.

Who is involved?

CIEMS is a project based solutions group which brings together the different stakeholders within a community and services providers to deliver a range of Information and Management applications.

How does it work?

The CIEMS project focuses on the application of WiFi connectivity to deliver information to the community as a whole and provide an ICT platform over which the range of services required can be delivered.

By developing the core infrastructure needed in establishing a unified WiFi network accessible by the community, investment in network equipment and integration with existing infrastructure enables the information portal ubiquitous coverage over large areas of the community.

What are the Benefits?

Cost Saving

Accuracy and timeliness of information delivery, cost savings by eliminating excessive printed information and the value in analytic user information will enhance service delivery to the broader community.

High Asset Utilisation

The integration and sharing of ICT resources developed by both private and government sectors in a unified network will be a major outcome for this project. The establishment of a platform and protocols that allow higher levels of shared ICT asset utilisation and reach will assist individual organisations and community members through the provision of ubiquitous and cost effective digital communications.

Increased Economic Activity

Economic activity will be increased through the attraction that the infrastructure has to event organisers, promoters and marketing organisations. An effective and efficient communications network is a significant factor in organisers' venue choice. Hosting of events from community markets or conferences to major national and international events can greatly influence the economic strength of any city.

Improved Public Safety

Increased Safety and Security for communities and physical assets will also be possible through the integration of CCTV and global positioning systems which provide real time and recorded monitoring of facilities and community spaces.

Social Media Communications

Initiatives utilising social media applications and interactive communications along with the development of micro business and community networking opportunities will foster a greater sense of belonging and cooperation within these community groups.

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