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SkyCell™

Rolling out networks faster

Overcoming environmental concerns

Reducing network access costs

Reducing network operating costs

Speed of Mobile Radio Network Rollout

With demand skyrocketing and competition for customers intensifying, you need a fast, reliable way to connect mobile radio sites into the fixed telecommunications network.

The PAV **SkyCell™** Broadband Optical Wireless Access System provides new opportunities for you to achieve rapid network rollout and to reduce capital expenditure and ongoing costs.

SkyCell™ is the brand name of a range of optical wireless access products dedicated to mobile radio operators. They are specifically designed to provide rapid network rollout by eliminating the need for costly fixed lines or wireless access systems. The **SkyCell™** range of products includes:

- The **E1** series offering 2 Mb/s and ranges of 2,000 and 4,000 Metres;
- The **E1 MultiMux** series offering up to four E1 channels and ranges of 2,000 and 4,000 Metres;
- The **E2** series offering 8 Mb/s and ranges of 2,000 and 4,000 Metres;
- The **E3** series offering 34 Mb/s and ranges of 2,000 and 4,000 Metres.

The PAV range of products also includes the SkyNet™ Series. These systems provide industry standard voice and data solutions, such as 3 E1 voice channels as well as the 10 base T Ethernet port.

Speed of Mobile Radio Network Rollout

All **SkyCell™** systems work in the Infra red spectrum and are completely license free, which means that there are no bureaucratic delays or lengthy spectrum planning issues to be dealt with. Installation can be completed within hours.

One of our largest existing GSM customers believes that **SkyCell™** paid for itself within the first month of operation and they should know, having purchased over 250 systems!

No single approach can meet all of the challenges of providing access links, but broadband optical wireless access solutions offer the most flexibility and freedom for network planners and builders. The **SkyCell™** solution is ideal for linking micro and pico-cells in an urban or suburban environment, as well as providing 'back-haul' links from base station sites. The systems can also be readily moved to reflect the customer traffic patterns in an evolving network.

Taking the High Ground

The PAV SkyCell™ solution represents a major step forward in access networks. Thanks to optical wireless technology, you can provide broadband connections to mobile radio sites and have the data handling capacity for enhanced user applications whether they be second generation plus (2G+) or true third generation (3G).

The **Sky Cell™** solution is designed to meet your current and future access requirements. The emphasis in many mobile radio networks is rapidly shifting from voice only to voice plus data applications and this is set to accelerate as we see 2G+ and 3G services introduced. As in the world of fixed access, bandwidth demand is ever increasing. It is important that the vital link into the switched network can provide you with the bandwidth ceiling headroom to meet these demands.

PAV, as a specialist in this field, already has commercial data-centric applications running at speeds of 155 Mb/s and it is therefore with confidence that we can claim that **Sky Cell™** has the potential to match your future bandwidth requirements. The scalable product portfolio allows mobile radio network operators to see optical wireless as a rapid response to customer traffic demands.

Making your life easier

All Broadband Optical Wireless Access Systems are not the same. PAV has concentrated on making sure that SkyCell™ can deliver seamless integration into mobile radio networks and high performance that is an essential prerequisite.

The design philosophy from PAV has been to produce a range of systems that are rugged and cost-effective so that mobile radio network operators can be certain that they meet stringent performance criteria expected in a public service environment.

This is borne out by our own extensive field tests, as well as independent laboratory tests, field trials and customer testimonials. In fact there are many misconceived views about the application of this technology in the wide-area domain, but then every new technology comes under fire from traditional suppliers as they jealously defend their lucrative markets.

Selecting a supplier with the right skills

Designing a robust network and achieving a rapid deployment requires a supplier to have a multitude of resources and expertise.

This starts with defining the network dimensions and selecting a supplier that can deliver with certainty, whether that be measured in hardware or support service terms.

PAV **Sky Cell™** is part of a full portfolio of optical wireless products and services, which makes PAV a perfect supplier choice for mobile radio network operators.

Our philosophy has been to establish a full range of essential services:

- **Network Design**
- **Site engineering**
- **Installation training**
- **Commissioning**
- **First and second line maintenance**
- **Spares logistic planning**
- **Flexible service contracts**
- **Network capacity planning**

Satisfy the Business Case

Mobile network operators seek to take advantage of strong demand for service and meet the coverage and quality of service goals in busy urban and suburban environments.

The growing demand for data services places emphasis on flexible network transmission plans.

The ability to respond rapidly to customer demand for bandwidth-hungry applications enables network operators to quickly gain market share and start generating revenue flows. Thanks to the bandwidth capability of **SkyCell™**, you can easily handle variations in traffic volume without necessarily incurring additional investment in access network capacity. There's no need to worry about future changes in customer service requirements, with **SkyCell™** you can easily evolve from voice-centric to data dominant services.

PAV **Sky Cell™** systems can be easily relocated, if radio sites need to be enhanced or re-sited. In fact mobile network operators often use our systems to provide links to temporary radio sites for coverage of special public events. The ability to establish service in a short period of time and to be able to clear the site quickly after the event, make PAV **Sky Cell™** the preferred choice.

Satisfy the Business Case

Simple, open network management makes it easy to integrate **SkyCell™** systems into the mobile operators' overall network management system.

PAV has developed a reputation for reliability and quality of customer service. As one of the world leading suppliers of optical wireless systems we have built a dedicated team of specialists to support our customers needs worldwide.

This solution offers one of the fastest returns on investment, as witnessed by Vodacom. “ I believe that Vodacom recouped its investment in under a month,” says Henry Stephan.