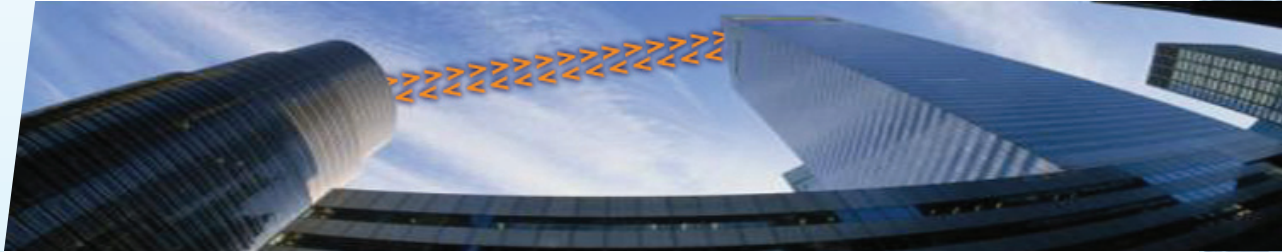**BridgeWave**
COMMUNICATIONS

Case Study
KULACOM

Kulacom Deploys High Capacity WiMAX with BridgeWave's Gigabit Wireless Links

KULACOM

Kulacom, established in 2006, is a wholly owned subsidiary of Kulacom Broadband Investment Company (KBIC), one of the newest broadband providers for large and small businesses. Located in Bahrain and Jordan, Kulacom provides voice and Internet services to emerging markets. Their services include point-to-point IP connectivity, VoIP and data hosting.

Kulacom Jordan secured a 3.6 GHz frequency license in January 2008 for a WiMAX network, positioning the communications operator at the forefront of wireless next generation technology. The new network improves the availability and quality of long-distance communications and delivers high-speed, high-bandwidth Internet services at significantly reduced costs.

> *"Not only is BridgeWave's technology incredibly reliable, but it is very cost-effective. Despite the harsh climate of the region, BridgeWave's products play a key role in our efforts to provide WiMAX-based services to our customers."*
>
> *Ian Heath*
> *Group Chief Operating Officer*
> *Kulacom*

The WiMAX network deployment currently covers more than 30 percent of the Greater Amman Area with plans to rapidly increase the coverage area over the coming year, in addition to expanding to other areas across the Kingdom.

Kulacom needed reliable backhaul to support its growing WiMAX broadband network. A wireless solution was selected because the deployment is traditionally much faster and easier to deploy than fiber trenching and would better accommodate the rapid deployment schedule Kulacom had in mind. Kulacom determined that a wireless solution would also be much more affordable than the high trenching costs associated with laying fiber networks.
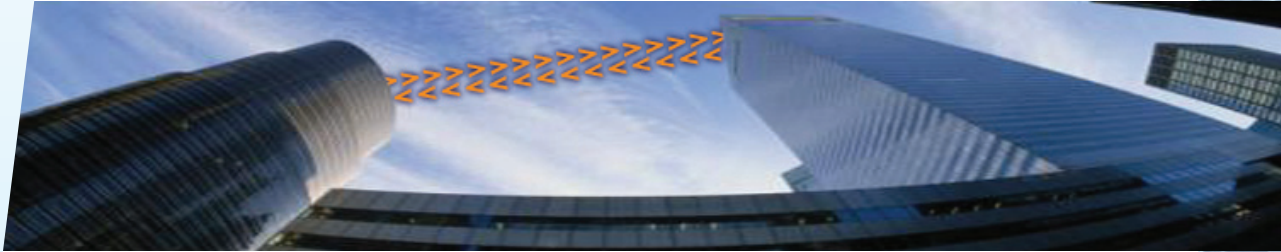
THE CHALLENGE

Once they put in a bid for the 3.6 GHz frequency license, Kulacom was immediately tasked with delivering wireless Internet connectivity on a tight schedule. Unlike copper circuits and leased fiber services, 80 GHz solutions scale in performance up to the multi-gigabit performance range, without incurring a corresponding increase in operator costs.

"Especially in emerging markets, where infrastructure is not yet in place, product reliability is a top priority. We were looking for a product that would provide a strong, unfailing network backbone," said Ian Heath.

CASE STUDY

Case Study

KULACOM

Kulacom was looking for a reliable solution that would address the following issues:
- Provide high-capacity bandwidth to support WiMAX for data and VoIP
- Deploy quickly with minimal maintenance
- Ensure reliability and performance but also remain cost effective
- Adapt to future bandwidth requirements and remain scalable for 4G networks

THE SOLUTION

"When determining which technology to use for backhaul, we debated between trenching fiber and using a wireless solution. Especially in emerging markets, where the infrastructure is weak, we discovered that gigabit wireless was the ideal solution," said Ian Heath.

Kulacom researched the leading wireless vendors and whittled down the selection to 12 companies. After rigorous testing, BridgeWave's technology proved to be the leader in reliability and performance.

Kulacom immediately began the deployment, which connected base stations to the core network providing end-users with seamless Internet connectivity. They purchased multiple AR80X links for the Jordan location and several AR80X links for the Bahrain location. The 80 GHz solutions provide highly-available connectivity at typical urban backhaul distances and feature sufficient capacity to support rapidly-growing IP packet traffic.

BridgeWave's simple all-outdoor architecture, combined with minimal configuration, yields smooth installations. As an added benefit, these links require minimal maintenance.

"We've found BridgeWave's AR80X product to be a true 'set and forget' technology; the installation was seamless and we have yet to lose connectivity," said Ian Health.

BENEFITS

Since the installation, Kulacom has relied on BridgeWave's AR80X product to ensure a strong, reliable high-capacity WiMAX backbone.

Despite the harsh climate of the region including severe heat, high winds and heavy rainfall, the AR80X wireless links continue to perform flawlessly. BridgeWave's 80 GHz link performance and AdaptRate™ mode switching provide reliable network connectivity regardless of inclement weather. During moments of violent downpour, transmissions switch from GigE to 100 Mb/s data rates, maintaining a highly available link. The technology ensures Kulacom customers receive reliable service and allows Kulacom to maintain their service level agreements (SLAs) with each customer.

Case Study
KULACOM

"Kulacom is committed to providing our customers with new standards of service, quality, and loyalty," said Ian Health. "BridgeWave's technology has provided a reliable network backbone to ensure our customers always receive high-speed Internet services."

BridgeWave's links operate in the uncluttered 80 GHz band, therefore BridgeWave's backhaul solution accommodates their present data and will also support future applications as Kulacom continues to expand their presence in additional markets.

CUSTOMER: Kulacom, http://www.kulacom.com/

INDUSTRY: Service Provider

CHALLENGES:
- Provide high-capacity bandwidth to support data, VoIP, and WiMAX
- Deploy quickly with minimal maintenance
- Ensure reliability and performance but also remain cost effective
- Adapt to future bandwidth requirements and remain scalable for 4G networks

SOLUTION: BridgeWave AR80X wireless links

BENEFITS:
- Provides strong, reliable high-capacity WiMAX backbone
- Maintains connectivity regardless of inclement weather
- Adaptable to growing bandwidth requirements
- Offers quick and painless deployment

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