

THE INFRASTRUCTURE REVOLUTION

Gulf Bridge International has boosted its carrier grade network by 10Tbps to meet the GCC's growing capacity demands. The firm's CTO **Gavin Rea** shares the details with Melanie Mingas

In the near 14 years since it was established, Gulf Bridge International (GBI) has built a 40,000km Smart Network with 17 landing stations and nine Points of Presence (PoPs), and invested in nine major subsea systems as it enhances connectivity across and beyond its native GCC.

Such builds meet the runaway demand seen for connectivity across the region, but activity at GBI has gained pace in the last year.

"Over the last 12 months, GBI has worked closely with our key partners to deliver network enhancements across all parts of the GBI Smart Network, both inside and outside the Gulf region," says Gavin Rea, GBI's chief technical officer.

"We've undertaken significant capacity upgrades to meet the demand we've seen and are continually refreshing the technologies we use to ensure our network meets customers' requirements – not just today, but in the future. We are optimising both the lit and design capacities within the network, as well as developing fast, efficient and cost-effective processes for adding capacity quickly so we can be one step ahead of the curve," Rea says.

GBI's most recent upgrade, announced in January, saw its network design capacity increase by 10Tbps – with the help of Ciena's GeoMesh Extreme, powered by WaveLogic 5 Extreme – on multiple segments, both within and outside the gulf. This was part of what Rea calls "GBI's infrastructure revolution". But as exciting as that sounds, the story is how regional nuances are driving such projects.

"Compared to other regions, content providers have traditionally played a significantly smaller role in the Middle East, with the majority of bandwidth being driven by IP Transit and IP Backbone providers," Rea says.

"Now, they are bringing the content closer to customers by setting up nodes in the Middle East, and this shows no signs of slowing down. Surges in video streaming, cloud computing and 5G have driven up bandwidth demand and with it the need for submarine and terrestrial network upgrades. As a result of these evolving requirements, regional bandwidth is expected to continue to grow," he adds.



Capacity

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Gavin Rea, CTO, Gulf Bridge International

Overarching trends

Between 2017 and 2019 – the last full period pre-pandemic – the international bandwidth used by global networks more than doubled to reach 1,503Tbps, according to TeleGeography. In 2020, figures from Analysys Mason showed that fixed traffic increased 42% worldwide over the year.

"We are now seeing global levels and the growth patterns return to what they were," Rea says. But that doesn't mean it will stop.

"The overarching trend we expect from the region's bandwidth requirements is simply to continue growing," he says. "We anticipate a huge amount of internet and video traffic and GBI is well-equipped to

provide a programmable and reliable submarine network to support this."

The demand drivers are 5G and the region's booming enterprise sector, but there is another carnival coming later this year – the 2022 FIFA World Cup.

While such events do not change the overall picture for the region, their short-term impact can be huge.

"Most growth will need to happen in the first eight months of this year so capacity can not only be implemented but tested well in advance of the event," Rea says.

GBI is predicting a "large but short-term hike" in the months before and after the tournament and it expects that trend to prevail across the region.

While he is unable to put a number on what GBI is preparing for, kit maker Ericsson says that sports venues around the world are seeing a 67% growth in data usage year over year, creating "a major opportunity for service providers to deliver enhanced networks".

From Rea's perspective mobile usage, 5G connectivity and trends in IP-based networks are key contributors to that 67%. On mitigating the challenges this could pose for the World Cup, he says: "GBI is prepared to provide a backburner of fully assured services to support the success of the event. There will be a strong focus on the capacity for resilience, as customers cannot afford their connectivity to falter as goals are scored."

Cost is another point to note. Ciena's WaveLogic 5 Extreme is designed to reduce cost per bit and, although Rea does not put a figure on what GBI is looking to achieve, he says that "this drop will allow GBI to offer more cost-effective solutions to our customers and partners".

"This upgrade will ultimately help GBI meet demanding internet traffic requirements globally and prepare the Middle East for major upcoming events, such as the World Cup," Rea adds.

"At GBI, we are incredibly excited to be playing a critical role in this and understand the huge volume of data, high-level security and the high speeds that will be required," he says.

"We're always prepared for high-demand circumstances, demonstrated by our effective response to the pandemic, as our network was purpose-built for the future." 