HPE's purchase of Athonet reinforces one of the many competing visions for private networks

February 2023

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The acquisition of private networks vendor Athonet by HPE, announced in February 2023, should not be a huge surprise – a large technology vendor buying a small firm in a hot new area is a common occurrence. However, this deal is interesting because it reinforces the vision of some vendors for private LTE/5G networks as an extension of Wi-Fi. This vision challenges other ideas about the role of private networks – as an extension of the public cloud (AWS's vision), as an extension of the public network (the vision of telecoms operators) or even as a separate market.

We forecast that the market for private networks will be worth around USD8 billion a year by 2027, which is not large enough to support so many different competing vendors (or visions). Vendors (and service providers) need to consider what steps they need to take if their preferred vision is not the one that customers want.

The Athonet purchase bolsters HPE's Aruba offering

From the perspective of Athonet's shareholders, a trade sale was always the most likely exit. As our other research shows, customers of private networks only want to deal with a small number of vendors to meet their needs in areas such as core networks, radios, spectrum and devices. Athonet, as a relatively small company focused on the core network, does not have the scale or means to build a complete solution itself. A trade sale was a less risky way to gain an immediate return.

HPE's interest in private networks makes sense as a supplement to its Wi-Fi business (as it does for other companies involved in the Wi-Fi market, most notably Cisco). By acquiring Athonet, HPE gains access to a highly respected private network vendor with considerable experience (Athonet boasts of over 450 deployments).

We expect HPE to launch solutions that provide a mix of Wi-Fi and private LTE/5G, potentially using the same equipment. Private LTE/5G should become almost as simple to deploy as Wi-Fi and offers a simple complement for services that need a higher level of performance than Wi-Fi, even Wi-Fi 6 or 7, can offer, in part because of its use of licenced spectrum.

Competing visions of private networks are fighting for a (relatively) small market

Spend on private LTE/5G networks in 2027 will grow to USD7.7 billion, from USD1.5 billion in 2022. This represents impressive growth, but is a far smaller market than the USD100 billion plus spent yearly on public cellular networks (and supports only three main vendors).

Figure 1 shows the main visions that vendors have outlined for the role of private networks, though other visions are available and more will emerge over time. However, it seems unlikely to us that so many vendors (and visions) can be supported in the longer term; some will fail.

Figure 1: Vendors' most common visions for the role of private networks

Potential role of private networks	Likely proponents	Potential advantages	Potential disadvantages
An extension of Wi-Fi. Private networks will be suppled in combination with a Wi-Fi network.	HPE, Cisco	• Simple integration with existing local area networks • Strong support from existing Wi-Fi ecosystem • Standard solutions in all countries	• Lack of flexibility • Challenging integration with wide area networks, public cloud and edge
An extension of the public cloud. Private networks are tightly integrated with edge and public cloud infrastructure and services.	AWS, Google, Microsoft	• Simple integration with cloud • Large supporting ecosystem • Standard solutions in all countries	• Lack of flexibility • Challenging integration with other networks, both local and wide area
An extension of public networks. Private networks are tightly integrated with public networks.	Telecoms operators and (to an extent) vendors such as Nokia	• Lower prices by using shared infrastructure • Roaming across private and public networks supported	• Challenging integration with local area networks, public cloud and edge • Potentially different solutions in each country
Independent, standalone solutions. Private networks are their own market rather than an extension of another category.	Other vendors and (to some extent) telecoms vendors such as Nokia	• Highly flexible – can provide bespoke solutions that benefit from best-of-breed technology	• Integration with other networks and public cloud • Complex to manage

Source: Analysys Mason

These competing visions raise issues that will need to be addressed by private networking vendors.

- **Most solutions today are independent, standalone networks, but this will change**. Currently, most private networks are deployed by large organisations such as car companies. These businesses have significant internal expertise and the capacity to stitch together complex solutions from multiple vendors. This may not be a template for the market in the long term; mass-market enterprises will need simpler solutions.

- **It is unclear exactly what these simpler solutions will look like**. The current model of private networks, where the enterprise – or one of its suppliers – needs to put together products from five or more different parties is not sustainable; this much is accepted by almost all parties (the sale of Athonet to HPE is part of the simplification process). The question then is what 'simpler' looks like – it could be that private networks remain independent, but all the elements are provided together, or it could be that private networks become an extension of another market, such as cloud, local area networks/Wi-Fi or public cellular networks.

- **Suppliers will probably not dictate which model is a success**. It is almost certainly beyond the power of the vendors to control how private networks will be bought and which of the models will be most successful. They will need to adapt their vision to the prevailing trends. For example, if HPE is correct and private networks are a natural extension to the Wi-Fi market, telecoms operators, vendors and public cloud

players will need to change what they are doing to fit this model. Techniques such as scenario planning should be part of the thinking of all players.

It is not yet clear which of these models will be dominant, or how quickly one will become dominant, but all involved parties will need to continue to track developments and remain flexible enough to respond in case their preferred model is not the one that is gaining traction.