

# Stadsnät i Svealand

FTTH CASE STUDY

## Swedish FTTH Network Consolidation Indicates Maturing Market

The ongoing consolidation and acquisition of Sweden's municipal FTTH networks point to increasing service maturity.



Swedish municipal Fibre to the Home (FTTH) operator, Stadsnät i Svealand AB (formerly, Mälarenergi Stadsnät AB), kicked off January 2014 with the addition of three new joint shareholders in addition to Mälarenergi AB.

Based in the town of Västerås, Mälarenergi Stadsnät was one of Sweden's first regional FTTH access providers when it launched in 2000. Initially 40% owned by the company ABB and 60% owned by the local municipal utility company Mälarenergi, the FTTH provider has belonged outright to Mälarenergi since 2003.

### General Information

**City:** Västerås, population 141,000, Hallstahammar, population 15,400, Eskilstuna, population 100,000, and Arboga population 13,400

**Project name:** Stadsnät i Svealand (formerly, Mälarenergi Stadsnät)

The new shareholders are the three neighbouring municipalities of Arboga, Hallstahammar and Eskilstuna, and Stadsnät i Svealand already operates FTTH networks in the latter two cities.

The new investment structure will ensure that Stadsnät i Svealand can maintain its focus on providing fibre access to homes and businesses over which service providers, including the local municipality, run a wide range of services. And it means the FTTH supplier will be able to draw on its considerable operational experience to expand the reach of its FTTH network into the bordering municipalities.

"We're inviting neighbouring municipalities to become joint owners in order to engage them closely in FTTH services," explains Per Norrthon, CEO of Stadsnät i Svealand. "The advantage for municipalities is that we provide the network know-how, and they can use FTTH to support local services such as caring for the elderly."

Stadsnät i Svealand's move to consolidate FTTH network construction and gain greater economies of scale is part of a broader trend in Sweden. In 2012, for example, Skanova bought Svenska Stadsnät AB. Now a number of private investors are also looking to buy and consolidate small FTTH networks, says Norrthon.



"Private equity firms have started to invest in the Swedish FTTH market. It's a sign that it's getting more and more mature."

### Business Case

**Cost:** €50 million over the past 10 years

**Number of years to ROI:** 7 to 10

**Business model:** active sharing.

Mälarenergi Stadsnät owns the network in Västerås, Eskilstuna Energi & Miljö in Eskilstuna, municipalities in Hallstahammar and Arboga. Stadsnät i Svealand operates the active equipment, and offers wholesale capacity to service providers.

Investment by municipalities brings several advantages, one of which is financial, says Norrthon. Stadsnät i Svealand bases its business model on a return on investment of between 7 and 10 years, and offers municipalities a minimum 6% return on total capital investment. But once these goals are met, municipalities leave the company to invest remaining profits in building more infrastructure, rather than in paying dividends to shareholders.

## Deployment

### Size of network in Västerås, including Hallstahammar and Eskilstuna:

- 2,500 connected businesses
- 19,000 connections for public services (municipalities' administration, schools, elderly care, etc.)
- 60,000 connected apartment buildings and houses and 30,000 subscribers
- 250 WiMAX clients

**Technology/architecture:** Ethernet. Access switches are connected in loops. The links in the transport network are 1 Gbps; customer connections are nominally 100 Mbps; actual bit rate depends on service selected.

**Deployment method:** duct and fibre laid at the same time; more fibre blown in later if needed.

**Time to deploy:** deployment started in 2000 and now reaches 60% of the city of Västerås.

And crucially, the presence of municipalities on the board allows Stadsnät i Svealand "to establish itself as a local, trusted partner," says Norrthon, which helps the company to market its access services.

Stadsnät i Svealand's business model is based on homes and businesses paying a one-off fee of approximately €2,970 to connect to an open-access FTTH network, and then selling open access to commercial service providers, as well as municipalities. Typically, consumers pay service providers approximately €40 per month for services of 100 Mbps downstream. In addition, it makes approximately one tenth of its revenues from selling wholesale black fibre connections.

Once an FTTH connection is installed, customers can have access to a spectrum of local government services, as well as a wide range of TV and other offerings.

Currently, Stadsnät i Svealand's network can reach 60,000 homes, following an investment of approximately 50 million euros in building city networks. In the next few years it intends to double its reach to 120,000 homes.



Norrthon expects several factors to stimulate demand, including the fact that municipalities are increasingly using FTTH to provide social services. Stadsnät i Svealand's open-access model means the take-up of new city services will have little immediate impact on its bottom line. However, the resulting growth in data traffic across residential broadband access networks should create greater need for very high-speed broadband, says Norrthon.

Indeed, the rapid growth in data usage should strengthen the business case for FTTH across Europe, and could underpin the development of more sophisticated pricing models based on quality of service.

"One of the big changes is that there is a growing demand from mobile operators for wholesale access and for WiFi offload," says Norrthon. "Everyone is using more data, and it will finally show itself in the pricing of data services. If operators provide quality of service guarantees, then they should be paid for it. I think Europe's operators will find new business models."

## End-user Services

**Services:** 1 – 1000 Mbps access

**Service providers:** > 35