Ciena's attainable vision: Be 'the best at moving bits and automating the network'

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Ciena's September 2017 analyst event gave long-time watchers of this nearly 25-year-old, packet-optical networking specialist a prime chance to talk with key executives and assess Ciena's plan to grow faster than its competitors by being 'the best at moving bits and automating networks'. Ciena, like many network equipment providers (NEPs), is remaking itself from a product-focused infrastructure supplier to a solutions company with much more emphasis on software and professional services. This comment assesses Ciena's assets, outlines its key execution challenges and concludes that the company is in a strong position to attain its strategic goal in the wide-area network (WAN).

Ciena has most of the key assets it needs in place, and is working on filling its professional services gap

There are five key assets Ciena needs to achieve its bit mover/network automation goal (Figure 1).

Figure 1: Ciena's strategic assets

Source: Analysys Mason

The company has the following assets.

- Sufficient **global scale and installed base** in the optical-packet infrastructure to be a credible leader.

- The **focus** of a specialist in the packet-optical and related network automation space. Its niche competitors (Adva, Coriant, Infinera) lack sufficient scale; its broader NEP rivals (Cisco, Ericsson, Huawei, Nokia, ZTE) must invest across fixed, mobile and IT/enterprise markets.

- An **'intelligent automation' platform**, Blue Planet (BP), which has three vital attributes that are attractive to CSPs that seek more control over their network and improving network operations: an open framework

for third-party development; strong data modelling-based (not template-based) configuration capabilities; and a non-monolithic, microservices-based architecture.

- **Strong and stable management, R&D and marketing** teams. Ciena's management team notably has drawn talent from 'Ciena classic' (pre major acquisition)[1]; several of its key acquisitions, such as Nortel MEN and Cyan; and rivals, such as Amdocs and Ericsson. Ciena's teams have a cohesion that many of its competitors, rocked by reorganisations and layoffs, should envy. The company's results provide a potent proof point; normalised revenue and operating profit growth over the past 5 years outshine its nearest competitors.[2]

- A growing list of **partners** as it remakes itself from a product-led/service-attached NEP to a networking and automation solutions company. Professional services (PS) is Ciena's most pressing capability need. It is adding to its in-house PS capabilities, but is partnering to deliver human resource-intensive integration its customers might need for network automation.

Ciena's main strategic challenge is growing Blue Planet to a significant part of its revenue base while strengthening its packet-optical business

Ciena moves bits with the best

Ciena's R&D organisation is tooled and oiled for it to remain a bit-transport powerhouse through innovation in programmable, coherent optics and optical line systems. Its willingness to supply optics in whatever way its customers want to 'consume' them – in an integrated system, with terminals and optical lines disaggregated, or as a component for integration into another vendor's system – is flexibility born of acknowledgement of its telecom and Internet content provider customers' market power.

Ciena is on target to grow market share by over 2 points in an optical market ex-China that will at best be flat this year. Ciena has the drive and determination to fortify its position as a strong optical alternative to Huawei, based on what it demonstrated at its analyst event and on its history of execution.[3] It also expects to increase its packet product revenue by 40% this fiscal year, and is implementing a strategy for further growth through 5G and MSO 'fibre deep' applications.[4]

WAN automation leadership will require learning to sell service-led software solutions

Where Ciena is really pushing itself strategically is in WAN automation. It has created a strategy to leverage its SDN multi-layer control product, Manage, Control and Plan (MCP), which, as part of the BP platform, can seed that platform within Ciena's packet-optical installed base. It acknowledges that it battles some scepticism of its software capabilities in the broader telecoms market. Software and related services accounted for roughly 5% (USD130 million) of its FY2016 USD2.6 billion revenue; we estimate that only about USD20 million (less than

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[1]   CEO Gary Smith, for example, has been with the company since 1997 and CEO since 2001.

[2]   See Ciena's 2016 annual report.

[3]   Huawei's annual global optical revenue are about double second-place Ciena's (roughly USD2 billion to 4 billion, respectively).

[4]   Its networking platforms revenue is split about 85/15 optical/packet.

1% of corporate revenue) are attributable to the BP platform and related services; this puts it in the top 10, but not the top 5, of network orchestration and management vendors.[5]

Ciena has a strong bid in the 'intelligent automation platform' contest, with its Multi-Domain Service Orchestration (MDSO), Analytics, MCP and other integrated components, which are microservices based and united through open protocols and APIs. However, Ciena must learn how to sell solutions comprising technology (its software with or without its hardware) and professional services to grow BP business 10-15X to where it is 10% of Ciena's total revenue.

Ciena candidly admits that it has had to learn how to sell software. It is launching what it refers to as 'quick-start' solutions, which are essentially standardised software applications based on CSP use cases that enable specific customer business outcomes. Initial quick-start solutions span service monetisation (Ethernet and IP VPN service automation) and network automation (4G backhaul, optical service and L1/L2 transport). It has not launched an SD-WAN quick-start solution, but should consider doing so as a priority; BP could have a strong play in this growth area. Ciena has also launched professional services, such as for network optimisation, and is inking partnerships with several SIs to allow participation in larger OSS/network transformation projects.

Network automation customer Windstream, which spoke at the analyst event, noted that "people and process are as important as systems – probably more so", and that one of Ciena's crucial contributions beyond the BP platform was its ability to help disparate groups within Windstream work together. Ciena is assembling all the right pieces – people, process, product, professional services and partners – for WAN network automation leadership; 10-15X success will require solid execution.

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[5]   For more information, see Analysys Mason's *Network management and orchestration systems: worldwide market shares 2016*. Available at www.analysysmason.com/noms-software-forecast-2017-rma07.