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Nokia Aims to Dominate CSP Infrastructure, Buys Alcatel-Lucent
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The merger of Nokia's mobile-focused Telco Cloud practice and Alcatel-Lucent's strong IP and optical portfolio potentially creates a telecommunications transformation powerhouse with credibility and a footprint that will rival Ericsson and Huawei, currently the top suppliers to telecommunications service providers (CSPs). Merging Nokia's sharp focus on mobile with Alcatel-Lucent's "one network, multiple accesses vision" will be a challenge. Based on history and the scale of this deal, IDC is cautious about the ability of Nokia to execute on this acquisition and expects competitors such as Ericsson and Huawei to benefit from near-term uncertainty about product lines, cost cutting, and corporate direction. Selling successfully to a consolidating set of customers as many of those customers seek to also converge legacy silos onto IT-based infrastructure and operations platforms presents a particular challenge for this team of infrastructure experts. For buyers of telecom network infrastructure, Nokia is poised to deliver the efficiencies that are needed to make telecommunications more efficient.

The good news for service providers is that the new Nokia portfolio will come together with an increasingly clear view of the realities and possibilities of network virtualization through NFV and SDN. The outcome of stronger telecommunications providers and happier customers of mobile, wireline, and cloud services is achievable for the new Nokia and would be optimal for the buyers of technology.

Nokia 2014 revenue was €12.7 billion, or €11.8 billion excluding the HERE mapping unit. Alcatel-Lucent's 2014 revenues was €13.2 billion for the company. Nokia and Alcatel-Lucent employ over 61,000 people and over 52,000 people, respectively. In 2014, Verizon, AT&T, and Sprint represented, respectively, 14%, 11%, and 10% of Alcatel-Lucent's revenue. In 2014, Nokia did not report any customer dependency larger than 3.5% for the year. The deal today impacts the North American and European markets the most: For the combination of networking companies, 30% of 2014 revenue came from North America, 27% came from Europe, over 11% came from Greater China, 18% came from Asia/Pacific and India, and the remainder came from the Middle East, Africa, and Latin America.

Buyers

This merger reflects the larger trends of telecom industry consolidation. Over the past two years, the industry has grown increasingly consolidated. Telecommunications service provider (CSP) mergers and acquisitions grew by 40% in 2014 to 100 major deals led by mergers in Europe and North America, and over the past two years, M&A deals of approximately $500 billion have transformed the industry. The top 15 telecom service providers now represent 43% of global revenue and 57% of global earnings.

Networks

ALU brings a strong IP and router business to Nokia. The IP Business Unit accounts for 45% of ALU's revenues (product and services), and as of 2014, ALU is the number 2 carrier router vendor in terms of revenue. ALU's flagship 7750 Service Router has been at the center of its growth strategy particularly in the carrier edge, where ALU has over 1,200 telecom and cable customers including 24 of the 25 Tier 1 CSPs. ALU's optical networking business is one of the market leaders in 100G and 400G deployments. ALU's access business and its VDSL2 vectoring technology are also market leader in fixed broadband CSP deployments for ALU, particularly in the EMEA and APAC regions.

One key question will be the role of ALU's Nuage unit, which provides a compelling network virtualization overlay technology for the datacenter and the network. ALU's SDN/NFV efforts to date include the ALU Virtualized Services Router (VSR), Nuage Virtualized Services Platform (VSP), and the CloudBand multivendor NFV orchestration platform, which are in a number of CSP trials. However, Nuage faces serious competition from network virtualization overlays such as VMware (market-leading NSX) and Juniper Contrail/OpenContrail, as well as Cisco's ACI/APIC approach to policy control and network virtualization. Nuage is a relatively small aspect of this deal today, but it has significant potential in the context of fast-growing hybrid cloud environments. It will be interesting to see how Nokia positions the Nuage technology in the marketplace. Nuage targeted not only CSPs as customers but also OTT cloud providers and highly virtualized and automated enterprises. How and whether the new Nokia leverages Nuage will be a key question for this merger.

The merger will create a powerful competitor in the radio and packet core segment. Both Alcatel-Lucent and Nokia will bring considerable market share and R&D prowess and assets that will be complementary. Among the many technology areas to benefit are LTE-Advanced, TD-LTE, LTE-Assisted Access (LAA), Small Cells, cloud RAN, virtual EPC, and virtual IMS. The new entity will be well placed to enable mobile CSPs across the globe to address friction and pain across various network stages as they seek to deploy new technologies.

This acquisition provides an opportunity for the new Nokia to chart a new, larger platform for mobility with SON, VoLTE, VoWiFi, NFV, and SDN — and could potentially facilitate a new approach to building mobile networks of the future. Nokia's growth as a supplier of mobile broadband has brought it to its position as acquirer today. In the nascent 5G sector, the intellectual assets of Bell Labs and the vision of FutureWorks plus the 5G R&D center in France could play a critical role. However, with the diversity of assets and experience, Nokia will need to clearly articulate its updated vision for 5G. Given the significant initiatives around CSP transformation, there is increasing demand for more consultative services. This is an area where Nokia has been growing and IDC believes that increased resources in this area will help meet this demand. In addition, the recent announcement of Alcatel Lucent's Bell Labs Consulting unit has the potential to become a "tip of the sphere" engagement model for initiating broader services and product opportunities.

Services

Since its acquisition of the wireless network assets of Motorola Network Solutions in 2011, Nokia has rationalized its Global Services arm, cutting costs, establishing shared resources, and emphasizing process and standards. Alcatel-Lucent has already divested pieces of its own services organization — most recently spinning off its CSP IT services in France (*GFI Informatique Announces French Strategic Partnership with Alcatel-Lucent in IT Systems*). These third-party relationships will complicate full rationalization of services contracts. But Alcatel-Lucent's professional services are largely tied to its specific products, so integration should be reasonably easier as decisions are made.

In managed services, it has been unclear whether Alcatel-Lucent would invest to regain its position as a full-fledged competitor to Ericsson, Huawei, and Nokia. We believe that Nokia Global Services will substantially reduce the number of global network operating centers (GNOCs) operated by the combined entity, probably retaining one of ALU's three American GNOCs as well as one in Asia/Pacific. Datacenters, expertise centers, spare parts stores, and existing partnerships will be similarly rationalized.

Over the past 12–18 months, partnerships with systems integrators have become an important part of each company's services strategy. In particular, Alcatel-Lucent's partnership with Accenture has the potential to be very complementary to Nokia/Alcatel Lucent's services efforts for CSP transformation, allowing the combined entity to position its services capabilities more holistically. Generally, existing alliances must be reevaluated to determine if the value propositions still provide incremental value for the combined company.

To retain many of ALU's services customers, the new Nokia will need to bring these customers over to Nokia's more industrialized services model while minimizing disruption. IDC believes that the combination of Nokia Global Services and Alcatel-Lucent Services creates a strong services capabilities that will rival traditional competitors like Huawei and Ericsson. As with the company overall, it will need to manage this

transition while steadily introducing more services capabilities in the IT domain, business consulting services, managed services, and customer experience management.

IT

Nokia's portfolio will benefit substantially from the work of Alcatel-Lucent in selling IP networking gear to enterprises and datacenters. This expertise in sales and technology will shape the ability of the new Nokia to succeed in selling its software-based portfolio to the IT department of CSPs and their natural peers: cloud service providers and enterprises so large that they effectively act as their own CSP. Nokia will be newly capable of driving forward the datacenter and IT technologies for CSPs with IP core networking, IMS, subscriber management, and cloud assets. A key shortcoming will be security, where the existing Nokia relationship with Juniper faces uncertainty due to the acquisition of Alcatel-Lucent's IP networking portfolio.

Nokia with Alcatel-Lucent assets will have key technologies to help with the operational systems in CSP networks: customer experience management, CloudBand, subscriber management, and the associated professional services. Management and orchestration (MANO) of network virtualization is poised to become a strength of the new Nokia portfolio because both Nokia and Alcatel-Lucent have been moving pragmatically to support NFV and SDN and also now face an internal interoperability and integration challenge that is on par with the integration work facing many implementation teams.

For the customer experience, ALU's Motive customer experience suite could be a platform to incorporate Nokia's sophisticated but more atomized analytics capabilities. Combining the best of both could help Nokia to realize its nascent analytics vision for an end-to-end solution that enables customer experience collaboration across operational silos at the CSP. Legacy product lines that are associated with traditional operational support systems (OSS) should be sustained through a transition period, but Nokia has already been decisive in prioritizing a forward-looking approach to a portfolio with customer experience management as well as cognitive networks.

Challenges

Two challenges stand in the way of a successful transformation: integration and IT assets. First, the culture clashes that have plagued cross-border mergers — including Alcatel-Lucent since 2006 and Nokia Siemens Networks 2006–2013 — could slow integration in the new company as well. The announcement makes it clear that a significant part of the company will remain in France and that R&D leadership will be distributed among the United States, France, and Finland. Major integration challenges loom in staffing and product plus cultural and political fronts. Achieving efficiencies is essential to this combination. Nokia has already executed a successful turnaround, and Alcatel-Lucent has made progress in its own Shift Plan; to succeed the new company must incorporate all the expertise from both efforts.

Second, for the evolution of CSPs to ICT players, Nokia must accelerate its IT datacenter capabilities during the corporate integration process. Ericsson, Huawei, and less mobile-centric players like Cisco and HP are working to unite networks and datacenters. Nuage would be a key asset but not enough. To compete with these major vendors, the new Nokia must transform its portfolio at the same time as it integrates it. The wider repercussions of IT assets will mostly be felt through Nokia's partner ecosystem — primarily in IP networking, where Cisco and Juniper are likely to feel the negative impact of Nokia's mobile portfolio tying in with ALU routing. One partner that will have its position fairly undisturbed is HP, which is partnering with both companies as an NFV infrastructure provider.

Opportunities

Choices will give Nokia the opportunity to be a leading vendor in many areas. In radio networks, ALU's distrust of software-defined radio (SDR) is up against Nokia's fervent SDR advocacy. Alcatel-Lucent and Nokia will have to decide on its SDN and NFV strategy. For example, Alcatel-Lucent has already opened an innovation lab in Mexico with Telefónica for this technology. All this puts the management in position to make some tough strategic and portfolio decisions, and some of those are likely to be risky or hard to make with a win-win solution.

Through Nokia's acquisition of Alcatel-Lucent, Nokia would become a comprehensive vendor for the deployment of fixed and mobile networks globally. CSP buyers value suppliers that understand their business and also have the technology and services to be effective suppliers. This deal also fits with CSP consolidation and via the Alcatel-Lucent IP network portfolio provides a potential entry point into the enterprise and cloud service provider businesses.

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