



# Elephant Talk Communications transforms mobile service enablement with HPE I-HSS

## Delivers seamless service experience across any type of mobile network

### Objective

Increase HLR/HSS performance and reliability to sharpen competitive edge

### Approach

Deploy the world's first integrated Home Location Register (HLR) and Home Subscriber Server (HSS) solution

### IT Matters

- Achieved 100% uptime for business-critical HLR/HSS services
- Avoided millions of Euros in losses by eliminating outages
- Reduced time to market from over a year to four months or less

### Business Matters

- Lowered total cost of ownership by 70-80%
- Assured mobile subscribers of consistent service experience across any network
- Strengthened competitive advantage through rapid deployment of new mobile services



## A revolution in mobile network services

Elephant Talk is no ordinary mobile network solutions provider. The company is revolutionizing the industry with its software-defined network architecture—ET Software DNA™ 2.0 Platform—an innovative solution that enables mobile network operators (MNOs) and mobile virtual network operators (MVNOs) to go to market in a few months rather than years like traditional approaches.

Developed in-house over the last 12 years, Elephant Talk's ET Software DNA® 2.0 Platform eliminates the need for complex, hard-wired systems for handling core network operations. Instead, everything is built on software, including operations support and

billing support systems (OSS/BSS), subscriber data management (SDM), home location register (HLR), and home subscriber server (HSS). What's more, it's completely integrated and automated. That means simple tasks like updating a price list, which could take months on legacy systems, can now be completed in minutes.

By simplifying mobile operations from end to end, Elephant Talk is shaking up the competition and growing rapidly. While growth is great for business, the company began having performance issues with its previous Blueslice HLR and HSS. Blueslice (now owned by Oracle) also lacked flexibility to support multiple networks such as 2G, 3G, and 4G. This required Elephant Talk to deploy separate HLR/HSS solutions for each network, which became very costly to

“We believe that with HPE I-HSS on NonStop, plus our core network software, we have built the best mobile solution in the market taking advantage of a single user data registry. It is carrier-grade quality, highly flexible, and extremely fast to implement—everything an MNO or MVNO needs to succeed today.”

— Martin Zuurbier, Chief Technology Officer, Elephant Talk Communications

maintain and made it difficult to centrally manage multiple subscriber profiles.

As a long-time HPE customer for its server infrastructure, Elephant Talk turned to HPE Communications and Media Solutions (CMS) for a new HLR/HSS solution. In close collaboration with Elephant Talk, HPE CMS responded by offering an entirely new solution to meet the company’s needs—the HPE Integrated Home Subscriber Server (I-HSS)—combining HLR and HSS, along with SDM.

Martin Zuurbier, Elephant Talk’s chief technology officer, comments, “Mobile network operators must have great agility to keep up with technology change and the way consumers use their devices. We chose HPE because they have a skilled team of mobile technology experts that could provide the deep level of integration we need to enable that agility in our solution. Combining HLR with HSS in a single application is absolutely strategic to moving our customers to the next stage of mobile network capabilities.”

## **Everything an MNO or MVNO needs to succeed**

Elephant Talk deployed the HPE I-HSS solution on HPE NonStop servers for several high-profile customers and has standardized on HPE servers for all new customer solutions. For MNOs in Europe and the Middle East, Elephant Talk runs HPE I-HSS on HPE Integrity NonStop NS2200 Servers while a major customer in North America runs HPE I-HSS on HPE Integrity NonStop BladeSystem NB54000c. Other elements of Elephant Talk’s core network solution such as OSS and BSS run on HPE ProLiant servers in an advanced virtualized network environment that allows flexibility to add new companies, and expand and contract capacity as current and new customers grow. The ProLiant server models vary based on individual customer requirements and may include rack-mount configurations including HPE ProLiant DL360, ProLiant DL380, and ProLiant DL580 servers, as well as HPE BladeSystem configurations including HPE BladeSystem C7000 Enclosures and HPE ProLiant BL460c Server Blades.

HLR and HSS functionality are critical for Elephant Talk to deliver reliable, high-quality mobile network services. Any disruption to these services impacts many other network operations, such as the short message service center and session border controller, causing prolonged outages that can be very costly to its MNO customers. In fact some countries in Europe require MNOs to pay compensation to subscribers for service loss, which can add up to many millions of euros. Therefore, high availability and reliability are of the utmost importance.

“Continuous availability and quality are why we chose HPE NonStop,” says Zuurbier. “The impact of downtime is far too great for us to risk running our I-HSS solution on anything else. We consistently get five-nines uptime with NonStop, and in the last 12 months we’ve had 100% uptime.”

He adds, “We believe with HPE I-HSS on HPE NonStop, plus our core network software, we have the best mobile solution in the market. It is carrier-grade quality, highly flexible, continuously available, and extremely fast to implement—everything an MNO or MVNO needs to succeed today.”

### **Deep integration accelerates time to market**

Thanks to deep integration between the HPE I-HSS solution and Elephant Talk’s SDNA, mobile network operators can be up and running with a complete service offering in as little as four months. MNOs using traditional infrastructures may take one to two years to launch an offering. Therefore, Elephant Talk and its customers gain a huge competitive advantage in the fast-moving mobile telecommunications market.

The agility of Elephant Talk’s ET Software DNA® 2.0 Platform and HPE infrastructure also enables MNOs and MVNOs to quickly add capabilities and services to keep up with a constantly evolving market. This includes large-scale projects like implementing number portability, which is critical for onboarding subscribers from other networks who want to keep their same mobile phone number. In the past, a number portability project could cost MNOs millions and take more than a year to complete. Elephant Talk can now deliver number portability in a few weeks at a tiny fraction of the cost. Most other services can be added in five minutes or less, including price lists, anti-fraud control, cellular ID integration, and location-based marketing tools.

Elephant Talk also gets much more than speed. With HPE I-HSS running on fault-tolerant HPE NonStop servers, the company maintains some of the highest key performance indicators (KPIs) in the industry.

Zuurbier explains, “In a deeply integrated network like ours any weakness in the HLR and HSS creates weaknesses everywhere. Because the HPE I-HSS is so stable and continuously available, all our operational KPIs are almost always at or near 100%. Delivering on these KPIs is the key to getting and keeping customers.”

## Case study

Elephant Talk  
Communications

## Industry

Telecommunications

## Customer at a glance

### Application

Integrated HLR/HSS infrastructure to enable seamless mobile voice and data services across multiple network protocols.

### Hardware

- HPE Integrity NonStop NS2200 Servers
- HPE Integrity NonStop BladeSystem NB54000c
- HPE ProLiant DL360 Servers
- HPE ProLiant DL380 Servers
- HPE ProLiant DL580 Servers
- HPE BladeSystem C7000 Enclosures
- HPE ProLiant BL460c Server Blades

### Software

- Elephant Talk ET Software DNA® 2.0
- HPE Integrated Home Subscriber Server (I-HSS)

## Network freedom for mobile subscribers

With the HPE I-HSS solution, Elephant Talk can offer MNOs and their subscribers another important benefit—network freedom. Since Elephant Talk now provides MNOs with a single UDR, mobile subscribers get a consistent service experience regardless of which network technology, generation, or channel they use—2G, 3G, 4G LTE, GSM, CDMA, and WiFi.

“Network freedom is a big selling point for Elephant Talk and MNOs,” notes Zuurbier. “In the past if a subscriber roamed from a GSM network to a CDMA network they couldn’t use their phone. That’s very bad for them and for business. With the HPE I-HSS we solved that problem so subscribers can move across different networks without disruption.”

With the HPE I-HSS, Elephant Talk also eliminated the need for multiple HLR/HSS solutions to support each network, lowering total cost of ownership (TCO) by 70-80%.

In addition, the HPE I-HSS enables Elephant Talk to track much more subscriber information in a single profile. This allows MNO service and support centers to respond more efficiently to subscribers without bouncing them from one service desk to another. Elephant Talk can even allow MNOs to create subscriber portals where they can log in and resolve many issues on their own.

Zuurbier concludes, “Elephant Talk—with HPE as our partner—is now delivering the next generation of mobile network operations. We consider it the best combination of capabilities in the world for MNOs to take to market.”

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