

## Dialogic® Media Processing and Signaling Products Enable Enhouse Networks to Deliver Industry-Leading Mobile Solutions

### CASE SUMMARY

Enhouse Networks is known globally for offering software technology solutions for the planning, design, operation, and support of next-generation telecommunications and utility networks. For over fifteen years, Enhouse Networks and Dialogic have forged a relationship that spans multiple solutions deployed by over 80 customers in 70 countries with over a billion users – delivering unsurpassed mobile infrastructure solutions around the world. For this reason, Enhouse Networks trusted Dialogic components to help enable its next-generation Enhouse Networks-Jinny VAS in One (ViO) platform.



### A Single Platform, Multiple Challenges

Enhouse Networks Jinny ViO is a single platform to enable and manage all the different VAS services in the Enhouse Networks portfolio in one place:

- Messaging
- Call routing and completion
- Device management
- Filtering and anti-spam

By consolidating value-added service applications into one fully optimized and pre-integrated solution, with a single point of contact into the mobile operator's core network, operators stand to benefit by saving up to 70% on CAPEX and up to 80% on OPEX. This simplified deployment shortens rollout times, facilitates easy capacity expansions, and enables additional messaging, voice, signaling, and filtering services to be added on demand.

When looking to employ as many commonalities as possible across a platform that supports 16 separate VAS services, the challenge facing Enhouse Networks was to find a technology company that offered cost-effective and reliable signaling and media solutions with the ability to scale from small MVNO levels of throughput to Tier 1 provider levels of throughput. Enhouse Networks required a company with a large and active R&D team, such that the ViO solution could continue to be deployed into new territories and interface with new types of networks as operators evolved from 3G to 4G to 5G, and as IoT spurred traffic growth. Furthermore, Enhouse Networks needed assurance that the ViO solution would continue to be compliant with operators' data center migrations from bare-metal to virtualization and towards NFV and SDN. Enhouse Networks demanded a closer relationship than a typical support SLA – and Dialogic was the technology company best able to provide what was needed.

In addition, two specific technology challenges throughout the platform were centered on enhancing the ViO messaging and calling completion offerings.

### Challenge 1: Enhancing the ViO Platform Core Messaging Offering

#### Short Message Service Centre (SMSC) & SMS Firewall

The Enhouse Networks' SMSC is able to operate in 2G/3G/4G environments and is able to perform domain selection routines for optimized delivery of SMS towards local and offnet mobile subscribers. This high-performance, feature-rich

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SMSC enables SaaS/hosted providers, MVNOs, and traditional operators to limit costs and maintain revenues from SMS as they transition to all-IP networks. In doing so, the ViO platform required:

- Native interworking between circuit-switched and 4G IMS messaging
- Support for TDM-SS7, SIGTRAN, and SIP in one platform
- An ability to scale from a few transactions per second up to tens of thousands of MAP and CAMEL transactions per second without performance degradation

## USSD Gateway

The Enghouse Networks USSD Gateway interconnects network nodes in various core networks (GSM, UMTS, and IMS), allowing them to intelligently route USSD traffic and build on-board USSD applications with an intuitive web GUI. Supporting thousands of interactive, customer self-care, mobile banking, and infotainment services across five continents, the USSD Gateway needed to provide:

- Connectivity for GSM and 2G/3G IMS networks
- Intelligent routing of MAP and SIP traffic from a single platform to multiple operators
- Signaling interfaces compliant with NFV core networks

## Solution: Dialogic® DSI SIGTRAN Stack

To meet these needs for the ViO SMSC and USSD Gateway components, Enghouse Networks utilized the Dialogic® DSI SIGTRAN Stack (MAP & IS-41), which provides proven SIGTRAN protocol implementations for use within virtual, high-performance products such as these.

The DSI SIGTRAN stack has been widely deployed in multiple networks and geographies, supporting ease of deployment and acceptance of the ViO solution around the world. The DSI runtime environment also offers the ability to deploy TDM interfaces without changing the application software by using Dialogic® Network Interface Boards with E1/T1 interfaces, such as Dialogic® DSI SS7MD, which is also used in the SMSC and USSD Gateway when warranted.

## Challenge 2: Enhancing ViO Call Completion Offerings

Enghouse Networks Call Completion services are a cornerstone of the ViO offering and include Voicemail, Visual Voicemail (VVM), Missed Call Notification, Voice SMS, Ringback Tones (RBT) and more. Enghouse Networks Call Completion solutions represent a considerable opportunity for network operators to increase ARPU and customer loyalty, by enabling the completion and stimulating the initiation of calls that would be unlikely to occur otherwise.

Key to supporting all ViO Call Completion offerings was flexible media processing software that would allow all Call Completion offerings to be based on the same scalable and flexible voice transcoding platform, enabling considerable savings opportunities for operators when purchasing multiple solutions within the suite.

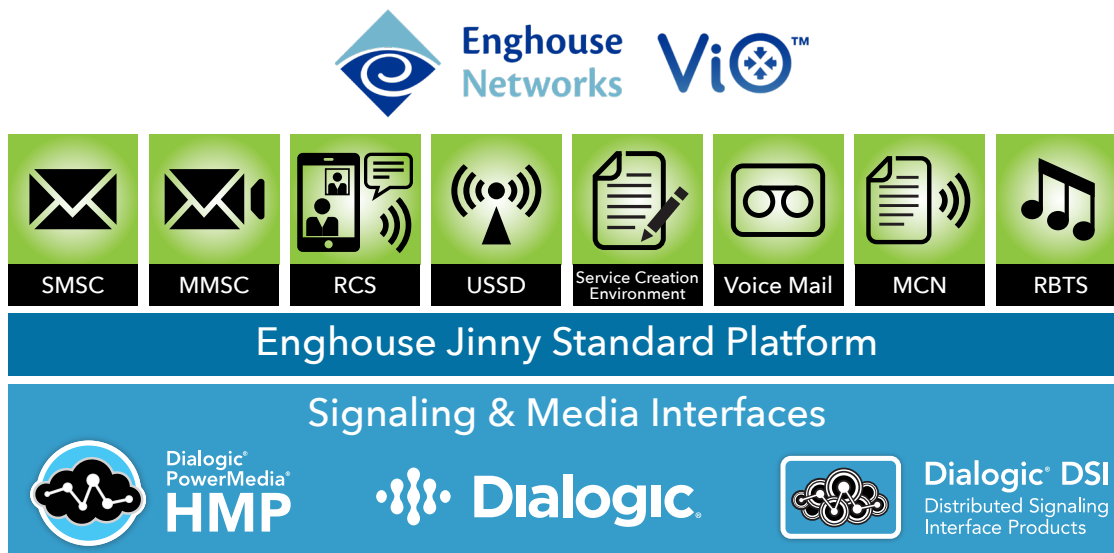
## Solution: Dialogic® PowerMedia® HMP

Dialogic's PowerMedia HMP performs media processing tasks on general-purpose servers without requiring the use of specialized hardware. PowerMedia HMP provides media services for building flexible, scalable, and cost-effective next-generation media servers, converged telephony applications, gateways, and video portals.

PowerMedia HMP is the core technology for the ViO carrier-class Voicemail offering, the VMM Gateway as part of the Visual Voicemail (VVM) solution, as well as for Missed Call Notification, Voice SMS, and Ringback Tones (RBT).

In addition, the Dialogic® DSI SIGTRAN Stack (INAP) and a Dialogic® DSI SS7MD Network Interface Board were used to create the SCP and Call Router at the core of the Call Completion services.

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## Results

As several leading VAS vendors begin to sunset their VAS product lines and reassign resources elsewhere, operators are searching for new vendors with active roadmaps and reliable support teams to support these VAS services. Operators are also looking for consolidated VAS platforms that require minimal maintenance effort and more cost-efficient support contracts. Enghouse Networks is positioned with the ViO platform to meet these needs. The ViO platform has been proven to allow smooth migration from incumbent vendors' bare-metal solutions to virtualized solutions in NFV environments. Currently, the Enghouse Networks ViO platform, incorporating signaling and media processing technology from Dialogic, has been successfully deployed with SaaS providers, MVNE/MVNOs, and Tier 1/2/3 operators on five continents.

With support for new network technologies like IMS, VoLTE, and RCS, plus more efficient codecs like EVS, Dialogic's DSI- and PowerMedia-based solutions have enabled the Enghouse Networks ViO platform to stay relevant and deliver on end customers' evolving needs. The close relationship between Enghouse Networks R&D and Dialogic R&D has also given Enghouse Networks the ability to rapidly adapt the ViO solution to customer requests, especially when breaking into new territories or when deploying into new network types. This technology relationship has and continues to translate into more and more business won by the ViO platform.

## About Enghouse Networks

Enghouse Networks is a subsidiary of [Enghouse Systems Limited](#), a publicly traded Canadian based software and services company founded in 1984. Enghouse Networks offers software technology solutions for the planning, design, operation, and support of next-generation telecommunications and utility networks. The Enghouse Networks technology portfolio spans Business Support Systems (BSS), Operations Support Systems (OSS), Mobile Value Added Services (VAS), and Customer Interaction solutions, all of which are designed to deliver strategic value for next-generation communication service providers and telecommunications businesses around the globe.

For more information visit <https://enghousenetworks.com>

## About Dialogic

Dialogic is a leading cloud-optimized solutions provider for real-time communications media, applications, and infrastructure to service providers and developers around the globe. Based in Parsippany, NJ with offices worldwide, Dialogic helps 48 of the world's top 50 mobile operators, and nearly 1,000 application developers build and deploy on agile networks using Dialogic technologies.

Learn more about how Dialogic is enabling agility by following us on Twitter @Dialogic, and visiting [www.dialogic.com](http://www.dialogic.com).



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