

INTEGRICS



CASE STUDY

ASTERISK IP-PBX

OVERVIEW

Integrics has built the Enswitch softswitch to deliver VoIP services for hosted PBX providers, ITSPs, and other commercial telephony providers. Enswitch was built utilizing Asterisk®, OpenSER®, MySQL, and other open source platforms. Today there are over 40 client accounts delivering services to enterprises of all sizes. The single largest customer consists of over 100,000 users on a clustered system delivering VoIP and unified communications to customers. Scalability has been proven to over 6,500 concurrent calls.

Asterisk's Scalability and Flexibility Proves a Perfect Fit for Integrics

CHALLENGE

The key differentiators for Integrics customers are scalability and flexibility. Each customer has their own billing and invoicing system. This makes simplicity of the many configurations that need to be managed and tracked a requirement. These capabilities, with the ongoing requirement to be scalable as new customers are added, pose the biggest challenges.

SOLUTION

Enswitch solved this problem by using simple Asterisk and SOAP APIs for billing and other applications which easily support different formats and service requirements. Asterisk handles all call control and management, while OpenSER is the SIP proxy for phone registration. A highly capable user interface was created and delivered for this environment in order to offer many of the Asterisk features as added value capabilities for users. Unified Communications includes fax, fax to e-mail, voice mail to e-mail, as well as feature code customization to align with the previous phone system while reducing training costs. A strong open source proponent, Integrics complements Enswitch with MySQL for database services and Apache for web services. An abundance of features are available. Integrics provides 24/7 support for emergency operations as well as 8/5 business hour phone support. E911 services are also offered to each client.

IMPLEMENTATION

The Integrics products were rolled out during the Fall of 2005. Each customer can select a solution based on the number of expected concurrent calls. Single servers to seven-server clusters are available, with larger networks available on request. Systems support high availability and failover, with the ability to add servers

to support growth. Clusters can also be geographically dispersed. End systems can use Asterisk open source, AsteriskNOW®, or Asterisk Business Edition™. The seven server cluster is depicted in Figure 1, as a guideline and an example.

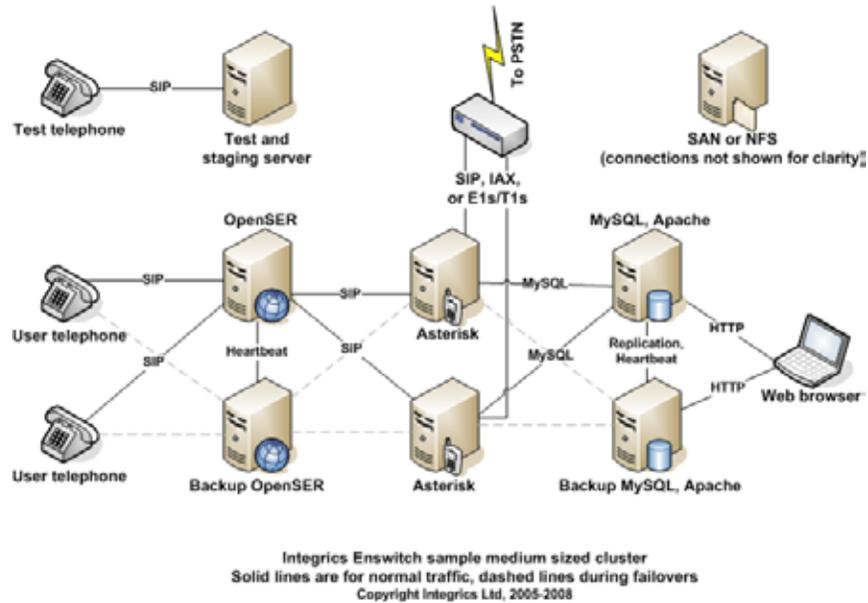


Figure 1: Seven machine cluster

For medium sized carrier systems, and as a foundation for larger systems, a seven machine cluster is suitable, with two database and web machines, two Asterisk machines, two OpenSER machines, and a SAN or NFS device.

This cluster has full redundancy (assuming a redundant SAN device), and any single machine can crash with only a few seconds outage. This system can also be easily expanded, or have more machines added, without affecting service.

RESULTS

Asked if he would use Digium's Asterisk if starting today, the answer was a resounding yes from the founder and creator of Enswitch! Why? "Asterisk is fast becoming the IP PBX and IP Telephony platform of choice for solutions of all sizes. Its power and flexibility as an application platform is an order of magnitude better than traditional telephony systems, allowing an enormous variety of solutions and business models on which to build."

Digium's vision is a world based upon open communications.

Our mission is to transform the way businesses acquire and operate their communications systems through the application of open source software.



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