The Ultimate Mashup: Web 2.0 & Next-Gen Telecom Application Servers

EXECUTIVE SUMMARY

The current market focus on dynamic and real-time sharing of social networking content via new applications such as Facebook, YouTube, and Flickr is delivering some of the most potent applications the Web has offered in years. One of the unforeseen outcomes of this pent-up demand is that telecom service providers are finding themselves pulled into the fray and challenged by Web 2.0-savvy subscribers to either allow mixing of Web 2.0 and telecom services together in a mashup format, or risk losing their business to another operator that will. While the term "Telco 2.0" sounds progressive and exciting, for many operators it represents a daunting challenge to master a new business model and a new set of inherent security risks.

For those service providers willing to take action to appease customers by making the commitment to Web 2.0 and Telco 2.0, there is no magic next software release approach to follow. Instead, each operator has to systemically assess the current capabilities in its application layer and decide on which products from telecom and Web vendors will meet its needs.

Logically, while it is clear that a next-generation application server of some form will help the transition process, as often noted in telecom history, there are no shortages of standards, specifications, application programming interfaces (APIs), hardware configurations, and services options to consider. These considerations include whether to implement Parlay X or Session Initiation Protocol (SIP)-based application servers, to take a stand on whether to use the Java APIs for Integrated Networks (JAIN) Service Logic Execution Environment (SLEE) vs. SIP Servlet APIs, and to decide whether to buy a more traditional multifunctional or fully programmable server.

The Ultimate Mashup: Web 2.0 & Next-Gen Telecom Application Servers examines the effect of Web services on next-generation telecom application servers, identifying competing programming and API techniques, protocols, and hardware configurations that a network operator must include in its purchasing criteria.

Excerpt 1: API Strength & Weakness Summary

<table>
<thead>
<tr>
<th>API</th>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parlay/OSA</td>
<td>Can be implemented in both TDM and IP networks</td>
<td>The role and future of Parlay services is unclear; deployed mostly in wireless networks only</td>
</tr>
<tr>
<td>Parlay X</td>
<td>Broad range of telco APIs with Web API support via Parlay X</td>
<td>SIP-based service model is preferred approach for NGN and IMS</td>
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</table>
The report features a case study of the BT 21st-Century Network (21CN) initiative to capture the strategies, decision points, and variables BT considered in plotting its transition strategy.

**Excerpt 2: BT 21CN Characteristics**

<table>
<thead>
<tr>
<th>API</th>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIP Servlets</td>
<td>Defined by 3GPP as the standardized approach in the IMS Application Layer</td>
<td>Services utilize SIP protocol with which Web developers have limited experience</td>
</tr>
<tr>
<td>JAIN SLEE</td>
<td>Protocol agnostic and can therefore support SIP APIs are well; provides the capability to migrate legacy IN to new platforms</td>
<td>Complex service creation environment; telco development skill necessary; limited vendor commitment</td>
</tr>
</tbody>
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*Source: Heavy Reading*

The main goals of this report are as follows:

- To examine the evolution path of the telecom application server and assess the most likely future course for application servers
- To identify and analyze the challenges that network operators face in delivering Web 2.0 services, and evaluate the impact of alternative carriers such as Vonage and Skype
- To evaluate the relevant APIs and programming languages used by application servers
- To define the various types of application servers, the services they enable, and their functional roles as detailed in industry standards
- To provide deep insight into Telco 2.0 and Web 2.0 services integration
- To deliver a detailed competitive analysis of the products, overall vision, market strategies, and long-term prospects of next-gen application server technology suppliers

The report also profiles and analyzes 28 leading suppliers of Web and telecom application servers, assessing their products, development plans, and technology strategies – delivering a thorough and independent competitive analysis for suppliers in the application server sector. In addition to analyzing the product strategies, differentiators, and strengths and weaknesses of each competitor, the report identifies technology partners and key customers for each supplier.

For a complete list of application server vendors analyzed in this report, [click here](#).
Report Scope & Structure

The Ultimate Mashup: Web 2.0 & Next-Gen Telecom Application Servers is structured as follows:

Section I is an introduction to the report, with complete report key findings.

Section II defines and outlines the historical events and drivers that have provided the impetus for the emergence of the application server – tracing the deployment phases of IN networks, Parlay/OSA, SIP, Parlay X, and Web 2.0-enabled application servers.

Section III examines the challenges that network operators must consider in implementing Web 2.0 services, as well as the impact of alternative carriers such as Vonage and Skype.

Section IV provides an overview of the API programming techniques that define the capabilities and interworking functions of the next-generation application server.

Section V presents the relevant standards that shape and define the nature of telecom and Web application servers.

Section VI addresses some of the services deployed to date in wireless and wireline networks, and assesses the application server hardware configuration and programmability options upon which current and new services execute.

Section VII provides a case study of the BT 21CN initiative, summarizing its view of the importance of Web 2.0 services and business models.

Section VIII analyzes the solutions, strategic partnerships, customers, and strategies of an extensive collection of telecom vendors, including Alcatel-Lucent, BroadSoft, Nokia Siemens, Nortel Networks, and Sylantro.

Section IX analyzes the solutions, strategic partnerships, customers, and strategies of leading Web application server vendors Aepona, BEA Systems, IBM, Microsoft, and Oracle.

The report is essential reading for a wide range of industry participants, including the following:

- **Service providers**: How will Web 2.0 technologies and applications affect your service initiatives? What role will next-generation application servers play in transforming the telecom services industry? Which standards and technologies will be most important to your organization's next-gen services strategy? Which suppliers are in the best position to meet your needs for next-generation products?

- **Technology suppliers**: How will the convergence of Web 2.0 and Telco 2.0 initiatives shape supply and demand for next-gen telecom services? Which technologies are likely to emerge as long-term solutions, and how does your portfolio match up to that list of probable leaders? What are the strengths and weaknesses of your key competitors, and who are they working with to build market share?

- **Investors**: How will the emergence of Web 2.0 and next-gen application servers affect the telecom sector? Which technology providers are likely to emerge as the main suppliers of next-gen products, and when are they most likely to reap those benefits?

The Ultimate Mashup: Web 2.0 & Next-Gen Telecom Application Servers is published in PDF format.