The Outlook for AdvancedTCA: Executive Summary

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AdvancedTCA Platforms and Blades

This Executive Summary is taken from the complete report of a new study, "The Outlook for AdvancedTCA Platforms and Blades," undertaken by RHK and co-sponsored by Intel Corporation and PICMG.

The complete report includes forecasts for unit volumes of AdvancedTCA-compliant network elements by segment, commercial blades by type, and common equipment such as chassis and backplane. The report also describes some alternative scenarios and the detailed assumptions used to derive the forecasts.

The telecom industry is considering radical business model changes, including adoption of open standards-based building blocks in place of proprietary system implementations. AdvancedTCA® (Advanced Telecom Computing Architecture), a new specification from PICMG®, is gaining momentum as a platform for such an approach. RHK's study shows the potential for significant AdvancedTCA adoption within 5 years. The market forecast for third-party commercial building blocks—including server blades, non-server blades, and common equipment—grows from a negligible amount today to $3.7B in 2007.

The top three benefits system vendors consider in evaluating AdvancedTCA are: (1) materials cost savings, (2) faster time-to-market, and (3) development cost savings. They also hope to achieve shorter lead times for build-to-order systems, to eliminate some inventory costs, and to expend less effort to keep up with technology advances.

RHK expects three potential phases of adoption for AdvancedTCA devices, each triggered by different efficiencies: (1) system vendor development savings and shortened time-to-market, (2) system vendor materials cost reduction, and (3) carrier efficiencies. This study, focused on the first two phases, is based on interviews with a dozen leading system vendors and four building block suppliers. It finds that the first stage of adoption is well along, with AdvancedTCA designs under way at a half-dozen to a dozen Tier-1 system vendors.

For the second phase to occur, the price of third-party commercial building blocks must drop below the cost of making comparable solutions in-house. If prices could be lowered to this point, the resulting volumes could generate efficiencies that allow such price points to be sustained. If the market meets the forecast here, AdvancedTCA will have reached its tipping point based on volume efficiencies.

Table 1: AdvancedTCA in network elements by segment assuming 2nd phase adoption

Segment	Network Element Types	AdvancedTCA % System Units in 2007
Wireless Access	BTS/Node B*, BSC/RNC, Transcoder	38%
Wireless Edge	MSC, HLR, GGSN, SGSN/PDSN, Billing server, Multimedia server	50%
Wireline Access	DSLAM, CMTS, MxU	1%
Edge	Edge router, Multiservice Switch, Optical Edge Device	3%
New AccessEdge	Media gateway, Softswitch, Media server	21%
Core Transport	Core router, SONET/SDH ADM, WDM	<1%
Signaling	Signaling server, STP, SCP	5%

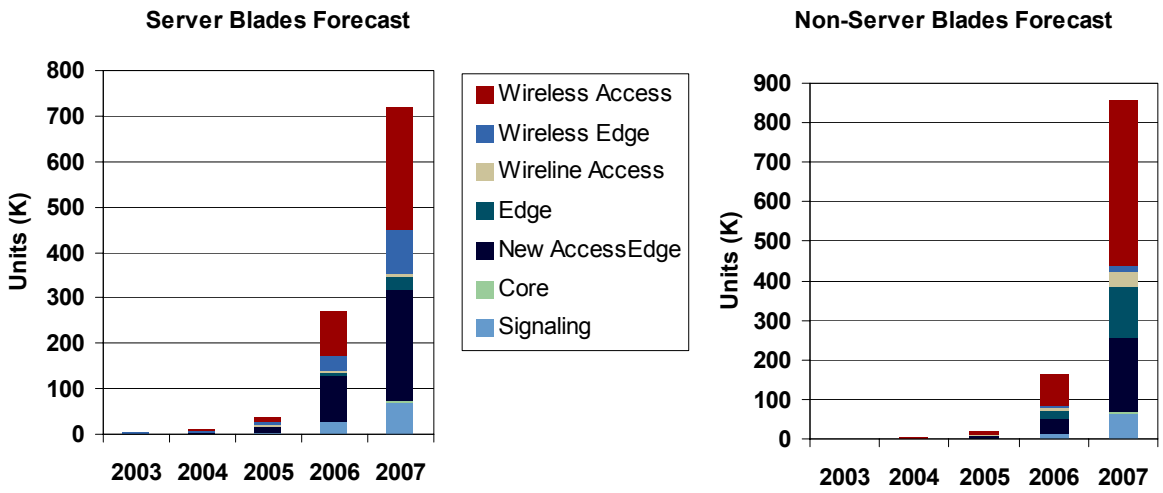
Source: RHK Inc. * Lower adoption than rest of segment

Telecom systems are typically re-designed only every 5 to 10 years. RHK believes that the timing of design windows will be the strongest factor determining the initial penetration of AdvancedTCA into a particular segment over the next 5 years. The market in 2007 will still be in an early stage, with many design-in opportunities not yet reached.

The forecast approach is conservative, based on the listed network elements only rather than on total capital equipment spending. Segments that will see the greatest initial benefit from AdvancedTCA include those with lower-volume system shipments (and thus greater development cost pressure) and those with products whose value lies primarily in software (and thus greater anticipated return if resources are shifted to software development). Assuming second-phase adoption occurs, we expect the highest penetration in 5 years in the Wireless Edge, Wireless Access, and New AccessEdge segments.

Figure 1 shows the forecasts by segment for server and non-server (network processing, digital signal processing, and disk storage) blades.

Figure 1: Commercial unit forecast by segment for AdvancedTCA blades, 2003-07



Source: RHK Inc.

AdvancedTCA has made a promising start. While such a profound change requires the convergence of a number of success factors and, most importantly, time, RHK believes the tipping point is attainable within the forecast period; if reached, the market can be expected to continue growing strongly for many years after that.