

EXECUTIVE SUMMARY

2001 was a challenging year for the wireless industry. As we approach mid-second quarter 2002, industry participants around the globe are announcing their 2001 results and are striving to appropriately set investor expectations. The continued economic downturn has prompted renewed concerns about the near-term commercial viability of mobile data services, including 3G. This report re-examines the worldwide market demand for 3G services in light of these new market challenges and provides renewed confidence in the validity of the UMTS Forum 3G forecasts released in Report 17, August 2001.

Recent events have not materially changed the 3G forecast of August 2001, which was built upon an assumption of slow adoption for the first five years.

The UMTS Forum Reports No. 9 and No. 13, released in September 2000 and April 2001, studied 3G service-revenue opportunities and proposed a 3G-service framework that characterises the market opportunity from the user's perspective. Report 17 provided an update to the worldwide and regional forecasts of the previous reports, given changes in market conditions during the second and third quarter of 2001. This report summarises the results of a re-examination of the August 2001 forecast in light of changes that have taken place in the latter half of

2001 and early 2002 – most notable among these being the September 11, 2001 attacks on the World Trade Center and Pentagon in the US. While these attacks were dramatic and significant in nature, we conclude that they did not materially change the 3G forecast of August 2001, which was built upon an assumption of slow adoption for the first five years.

However, predictions of slower subscriber growth and reduced capital spending by the carriers have investors worried. Vague and seemingly contradictory statements from some carriers (e.g., “we are reducing our capital budget by 40% ... our 3G deployment plans remain on track¹”) are serving to further cloud the outlook for 2002. So we are again examining these concerns in light of the methodology used to develop the 3G forecasts.

In this report, we examine several factors and reiterate how the UMTS Report 17 forecast addresses each one. In each case, we held to a very specific definition of 3G based on services delivered using new spectrum specifically allocated to 3G. 2.5G and other

¹ J-Phone press releases in January and February 2002.

transitional networks are excluded from the forecasts. Therefore, users attracted to these new 3G networks will – almost by definition – be mobile data users.

The industry factors examined are:

- Adoption rate for 3G
- Worldwide 3G service demand
- Pricing and willingness to pay
- Access to capital
- Perceived lack of consumer demand

In addition, the forecast validation highlights the UMTS Forum position on several key aspects of 3G services:

- Complex services will take time to develop and services will be adopted slowly through 2005 in the developed countries.
- Many countries in the developing world will not adopt any 3G services until late in the decade.
- Issues involving handsets and 3G-service delivery are short-term and resolvable and will not affect the longer-term viability of 3G services.
- The demand for 3G mobile data services is real. Consumers and business users have consistently demonstrated strong interest in trying new services that combine mobility with content and personalisation.
- The challenge is to create compelling services that take advantage of the promise of 3G technology and provide a satisfactory end-user experience.

Market conditions are dynamic and the UMTS Forum will monitor 3G progress. As a Market Representation Partner advising the technical standardisation community, the UMTS Forum will continue to guide the industry on 3G-service requirements, user expectations and market opportunities.