



Technology Trends Driving JANUS Retirement



The JANUS access control solution was initially developed approximately 20 years ago and used the latest 16-bit Personal Computer (PC) technology that was available at the time. In recent years the availability of faster processors and cheaper computer memory has led to dramatic hardware and operating system changes. These changes mean that while functional, JANUS is now approaching the end of its commercial life. This paper briefly explores these changes and the opportunity this creates for Grosvenor.

JANUS Technology

JANUS is a 16-bit Windows application. In 1995 Microsoft introduced Windows XP and support for 32-bit applications that offered improvements in performance for some applications. The success of the PC has long been characterized by good backward compatibility, ensuring that newer operating systems operate with older software and data. Microsoft achieved this compatibility by ensuring that 16-bit applications like JANUS continued to operate on newer 32-bit operating systems. This compatibility has allowed JANUS to be compatible with many versions of Windows including: Windows 95, Windows 98, Windows 2000, Windows Server 2003, Windows Server 2008, Windows XP and Windows 7 32-bit.

Era of 64-bit Computing

In 2005 Microsoft introduced a 64-bit editions of Windows XP and Windows Server 2003. The primary benefit of this technology was support for PCs with more than 4 gigabytes of RAM. Since

2005, Microsoft has offered separate 32-bit and 64-bit editions of their operating systems:

- 32-bit editions of Windows Server 2003, Server 2008, XP, Vista, Windows 7, 8, 10
- 64-bit editions of Windows Server 2003, Windows Server 2008, XP, Vista, Windows 7, 8, 10

The speed of adoption of 64-bit editions was faster in PC based servers than desktops as these frequently benefited from more than 4 gigabytes of RAM. For this reason, Microsoft chose not to offer a 32-bit version of Windows Server 2012 – marking the end of 32-bit server computing.

The adoption 64-bit computing for laptops and desktops has been much slower. During the life of Windows 7 the crossover point was reached where 64-bit technology took the lead. In 2010, 46% of Windows 7 systems were 64-bit. Since then adoption of 64-bit versions of Windows has increased with every new version: Windows 8 and Windows 10.

With Windows 10, nearly all new PCs are shipped with a 64-bit operating system pre-installed. Today, even the cheapest laptops (for example the cheapest £159.99 laptop at PC World), comes with 64-bit Windows. Any PC supplied with more than 4 gigabytes of RAM must run a 64-bit operating system in order for the full memory capacity to be available to the user.

In the same way that 32-bit Windows supported by 16-bit and 32-bit applications for compatibility; 64-bit Windows supports two types of application: 32-bit and 64-bit. Microsoft chose to drop support for legacy 16-bit applications on all of their 64-bit operating systems.

In September 2012 Microsoft announced that from January 2015 they would cease mainstream support for Windows Server 2008 (the final server OS to support 16-bit applications) and Windows 7 (the final desktop OS supported by JANUS). Some “extended” support services are available for these platforms until January 2020.

Technology Impact on JANUS

It is estimated that 75% of JANUS installation use desktop rather than server editions of Windows. Grosvenor chose to cease development of JANUS following the release of version 4.3.3 in February 2009. This newest operating system supported by this release is Windows 7 32-bit. Microsoft has therefore ceased mainstream support for all of the platforms that JANUS supports. Microsoft continues to offer some expensive and strictly limited “extended” support services for Windows 7 until January 2020.

JANUS is incompatible with all 64-bit versions of Windows. As most new servers and desktop PCs are now 64-bit, it is becoming harder to procure and configure PCs that run 32-bit editions of Windows. In many cases it will be possible to re-install a 32-bit version of the operating system, but this process is time consuming and is increasingly likely to fail. This represents a risk and burden that end users and installers are unwilling to accept.

As full support is no longer available for Windows 7, new PCs will often be unable to run such an old operating system. It is therefore now becoming hard to purchase a new PC that is guaranteed to be compatible with JANUS.

It may be possible to support JANUS on 32-bit editions of Windows 8 or Windows 10, but Grosvenor has not tested and does not support this configuration. Since the use of any 32-bit operating system is now likely to require a complex re-install of the operating system, there would be limited customer value in offering support for 32-bit editions of Windows 8 or Windows 10.

Commercial Impact on JANUS

Any customer conducting an audit of legacy Microsoft platforms is likely to identify their JANUS installation as a compliance or support risk, due to the lack of support for the operating

system. Larger organizations are actively working to move to a minimum of Windows Server 2012 or Windows 8.1. Customers will become aware that if their existing hardware fails, they may face an extended outage while they attempting to procure a replacement PC that is compatible with JANUS.

The JANUS and Siteguard Migration Opportunity

Grosvenor is able to provide a unique migration service from JANUS or ADT Siteguard to SATEON. From a technical perspective, no other vendor is able to offer a migration to an alternative access control solution that offers:

- Re-use of existing JANUS door controller hardware – reducing both hardware and installation costs
- Migration of existing access control policies – potentially saving hours of configuration
- Zero re-enrolment of users

These benefits are likely to be more compelling for larger sites where the cost of replacing hardware and repeating user enrolment and configuration is higher.

In January 2016 Grosvenor released a beta version of a new JANUS site data collection tool. This tool is designed to lower friction in the JANUS to SATEON sales process by automating collection of data that Grosvenor needs to provide an accurate quotation. Following beta trials, a full release is planned during February 2016.