

White Paper



SiD Integrated Intelligence Solution

TECHNOLOGY OVERVIEW



For further information

Email: info@superstructuregroup.com

Website: www.superstructuregroup.com

UK Office

Superstructure Group Limited
Ash House, Fairfield Avenue
Staines, Middlesex TW18 4AB
United Kingdom
Ph +44 870 803 2579
Fax +44 1784 224 245

NZ Office

Superstructure Group (AP) Limited
Level 1, 19 Tory Street
P O Box 19127, Courtenay Place
Wellington, New Zealand
Ph +64 4 385 0001
Fax +64 4 381 3934

Copyright © 2011 Superstructure Group Limited

All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Superstructure Group Limited, the copyright holder.

This document is the property of Superstructure Group Limited and may not be disclosed to any third party or copied without consent.

Table of Contents

Integrated Intelligence Solution Technology Overview 1

 Introduction.....1

Industry Standard 1

 SiD 3-Tier Secure Collection Architecture.....2

 SiD Client Server Model3

Reliable 4

Secure..... 4

Scalable 5

Integrated..... 5

Interfaces 6

Software and Hardware Requirements..... 7

 Client Specification.....7

 Server Specification7

 Database Resources (Indicative only – detailed capacity plan is required).....7

Integrated Intelligence Solution Technology Overview

Introduction

SiD is built on industry standard technologies. It fits seamlessly into your IT environment providing a secure intelligence database and communication with other information sources both within and external to your organisation. Database server choice is offered with Oracle or Microsoft SQL server.

SiD core technology is delivered in two modes. SiD Secure Collection is a 3-tier model. This model provides global communication flexibility via the web with security plug ins for authentication and encryption, plus options for disconnected operation. The second mode of operation is for heavy analytical use, operating in a more direct client server mode.

Our development direction is to provide all functional options on a 3-tier scalable application server platform delivering to light clients.

The following sections detail the key aspects of our technology in delivering an integrated intelligence solution with a level of technology that is appropriate (open and secure), flexible for rapid deployment, fosters buy-in from contributing agencies, and delivers exceptional intelligence value.

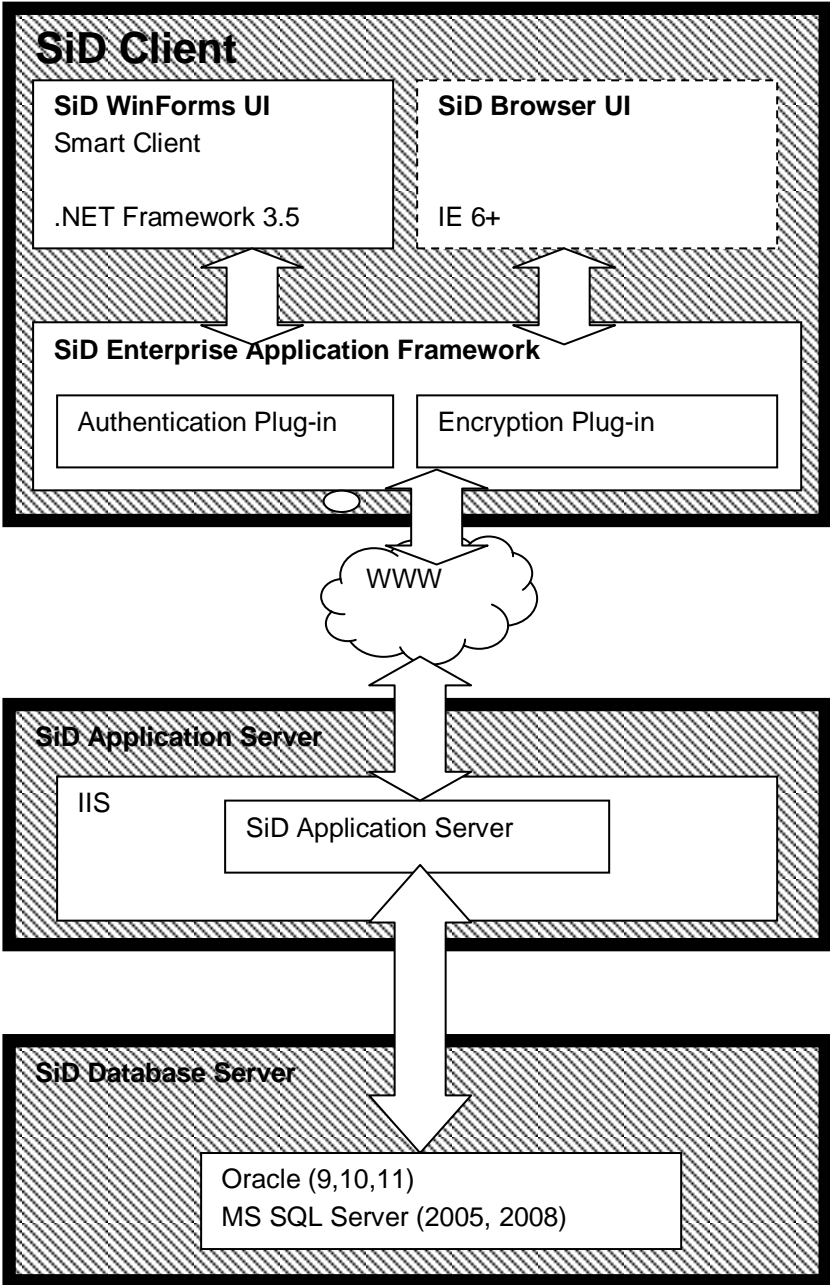
Key aspects:

- Industry Standard
 - Reliable
 - Secure
 - Scalable
 - Integrated
 - Interfaces
-

Industry Standard

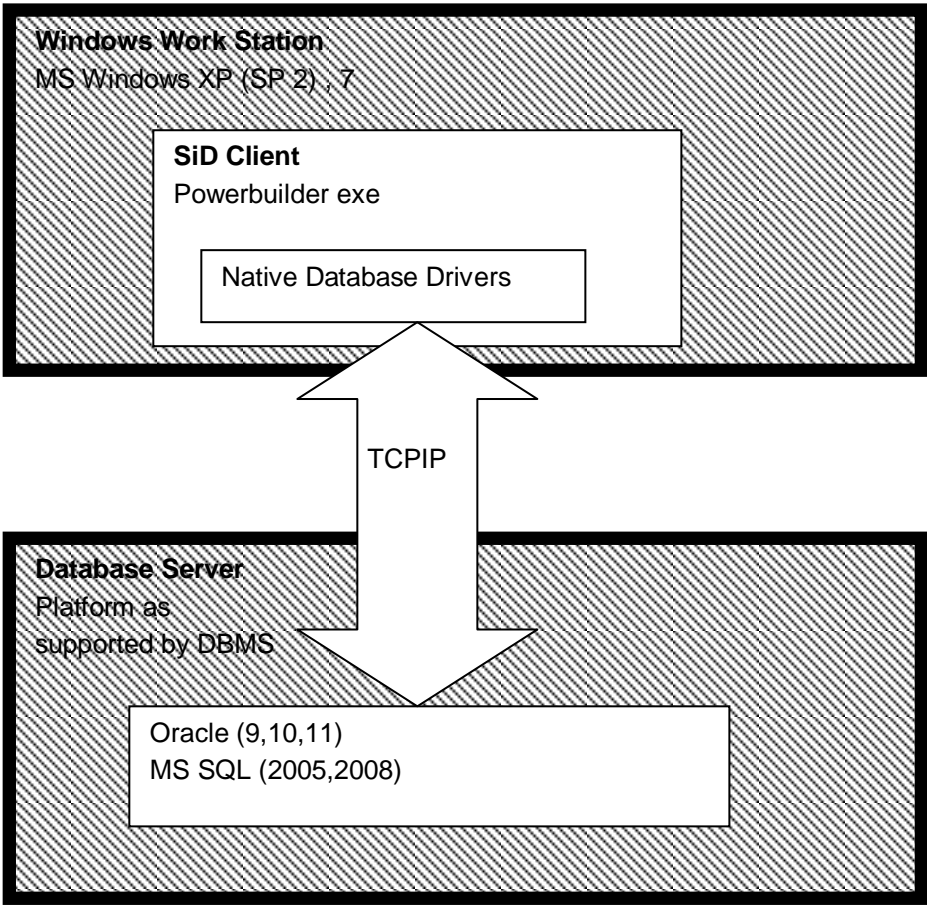
SiD Secure Collection architecture operates with a scaleable application server layer on Microsoft IIS. SiD is currently offered on a Smart Client interface – with all the advantages of user interface power driven by Microsoft .NET client framework. The unique Application Framework underpinning the SiD application also allows minimal client delivery over a web browser. Data exchange is via XML – with an open standard for information exchange.

SiD 3-Tier
Secure
Collection
Architecture



**SiD Client
Server Model**

SiD client server components have been optimised for performance over enterprise wide area networks. Data compression is used to minimise network traffic – and performance has been proven on low bandwidth networks. The application has heavy stored procedure implementation at the server end – producing a “plump” client. The system is scalable from stand alone operation through to wide area network. Current implementations include multiple sites with nation-wide WAN operation. SiD clients are supported on Windows XP (SP 2) and Windows 7 – with thin client Citrix meta-frame implementation a proven option.



Reliable

SiD has been used in mission critical operations since 1995. Such critical operations demand an extremely high level of software reliability. For new releases the product reliability is guided by a broad test strategy, including functional and performance benchmark tests, extended configuration and integration testing plus early release programs.

Secure

SiD uses both intrinsic data security provided by certified DBMS providers – plus additional hash access protection – which ensures access to the database is restricted to trusted database administrative activity. Military audits on SiD security have satisfied Secret classification levels, multiple industry security audits have certified SiD data security as suitable to protect information which may endanger the life of an undercover operative.

The plug-in capability for authentication and encrypted transmission have allowed SiD to operate with full smart-card (or biometric) authentication plus encryption standards as required for any classification level.

SiD provides fine-grain data security and silo partitioning – down to an individual item of information. Coupled with this, security groupings of users can be defined for access to various silos. This ensures any need-to-know security access requirements can be modelled for any organisation needs.

In addition to the physical security of data, SiD provides a multi-tiered functional security model that ensures specific users can only be allocated functions according to defined security groups. The entire security management model is under the control of the SiD Security Administration facility – which is controlled by authorised users within the organisation – entirely at the discretion of the organisation. The security model is fully customisable to the organisation structure and operational requirements. The model allows security of data down to an individual attribute of an object profile - which directly integrates with database schema security.

SiD's 3-tier web architecture allows the system to securely send and receive information over the web or over an enterprise network. Part of this capability is the SiD Smart Forms, which can be remotely deployed to allow other agencies to submit information in a fully secure manner.

Security using a base level of HTTPS encryption has certification to FIPS140 level. However the plug-in capability provides virtually unlimited security extension.

SiD architecture has been developed with input from Government certified security specialists – and is supplied with a security risk matrix.

Scalable

SiD's Secure Collection architecture is completely scalable at the Application Server level, allowing additional servers to be dynamically applied to application demand. In addition the SiD2SID data transfer capability allows SiD information to be replicated from one database server to another.

In terms of client-server model deployment, SiD can be delivered on anything from a stand-alone laptop through to a large corporate WAN.

SiD data compression provides virtually unlimited document storage capacity (contained in compressed blobs in the database). No limit to the number of text items or images stored. Storage is only limited by the parent DBMS.

Integrated

SiD information exchange model relies on an extensible XML information schema which can be mapped into industry standard schemas – such as the USA National Information Exchange Model (NIEM) standard.

SiD's Import and Export Data Capability provides the capability to:

- share information between cooperating users of SiD, in a manner that is secure and easy to use
- bring information currently stored in another application used by your organisation into SiD and keep that information up to date
- bring Smart Forms intelligent data capture directly into SiD.

Enterprise Application Integration can be achieved rapidly with SiD's Secure Collection Services via XML data streams over HTTPS.

Interfaces

SiD provides interfaces to standard Microsoft Office products for uploading content from Word documents and spreadsheets. File Upload Types: Microsoft Office (XP, 2007, 2008) which includes all file types supported by those products (txt, rtf, xls etc)

Interfaces to Image Viewer and Image Scan/OCR are provided. Image formats handled by SiD are JPEG, BMP, TIF, GIF, PCX, EPS, Zsoft, Mac PCT, Targa, WMF, WPG. Images can be cropped, sharpened, compressed, zoomed and cut/paste from/to other software.

SiD provides a seamless interface to i2 Analyst Notebook® for visualisation and analysis: i2 Analyst Notebook (V6 – V8).

A data definition and import facility is provided to describe the import formats of telephone call information from various telephone suppliers, and transfer a call log from raw telecom data.

SiD also provides a GIS Interface to output selected geo-coded data.

Software and Hardware Requirements

Client Specification

Hardware

- 1.3GHz Pentium IV or greater (at least 1GB RAM).¹
- At least 100MB free disk space.
- Minimum screen resolution of 1024x768 high colour (16 bit).
- 1 Free USB or parallel port for running i2 Analyst Notebook dongle

Software

Required

- Microsoft Windows XP Professional (Service Pack 3 or later), Windows Server 2003.
- Internet Explorer 7 or later.
- Oracle 9 client or later.²
- Microsoft Office 2003 or later (for certain import/export functionality).

Optional

- Adobe Acrobat Reader 7 or later (for reading SiD documentation).
- i2 Analyst Notebook 6 or later.

Server Specification

Hardware

- As indicated by database software provider.

Software

- Oracle 9 or later.
- Microsoft SQL Server 2005 or later.

Database Resources (Indicative only – detailed capacity plan is required)

- Disk Capacity: Initial: 200MB
- Growth: 2MB per 100 Reports
- 1MB per 100 Profiles
- Typical: 3.2GB with 20,000 reports per annum
- 100MB per 100 attachments³

¹ Running as standalone machine, the minimum database requirements must also be considered.

² If connection to an **Oracle** database.

³ Though attachments are compressed in the database, their stored size may be comparable to the original file's size.