



SiD Secure Collection

PRODUCT OVERVIEW

Release No: 1.4

Release Date: September 2009



For further information

Email: info@superstructuregroup.com

Website: www.superstructuregroup.com

Head Office

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

Regional Office

Superstructure Group A.P. 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 © 2009 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

Overview	1
What is SiD Secure Collection?	1
Component Plug-in Model.....	2
Benefits of SiD Secure Collection	2
Product Features.....	3
Automated Intelligence Capture	3
Operate Remote and Disconnected.....	3
Data-based validation.....	4
Security.....	4
Security Across Multiple Operations	4
Dynamic Project Load	4
Product Modules	5
SiD Smart Forms.....	6
SiD Smart Form Design	7
SiD Classifier	7
SiD iKe 304 Interface	8
SiD Import.....	8
Technology Architecture.....	9
Web Services	10
Technology	10
Scalability	11
SiD Smart Forms compared to Word templates	12

Overview

Superstructure Group's Secure Collection application provides a new dimension to the collection of intelligence. The application automates the extraction of intelligence from information and provides remote connectivity for centralised applications, enhancing their area of application, increasing their level of functionality and enabling core applications to address a wider market.

Organisations can achieve intelligent and secure information capture in shorter timeframes and greater accuracy with much less effort and involvement.

What is SiD Secure Collection?

SiD Secure Collection (SiD SC) is a new framework for delivering smart intelligence capture at source in remote/disconnected operation, and a secure data transmission mechanism over your network or over the web to central intelligence repositories.

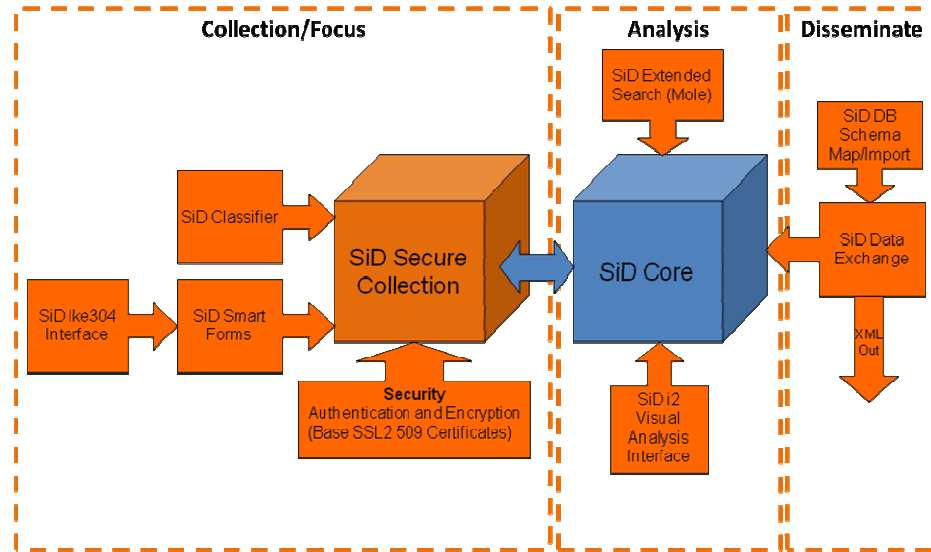
Custom Form building service., SiD Smart Forms, enable intelligence information capture to be matched directly to an organization's intelligence or information model. Automated Intelligence Capture provides the mechanism for securely bringing in data from any source to a centralised database. Superstructure offer specialised support to develop Forms to match your business needs.

SiD Secure Collection automates much of the intelligence linking and entity recognition process, providing attachment of related information in any file format including images, media clips, sound files or any other form of application-recognisable file. The SiD Smart Forms supports full validation based on the meta-data validation definitions for the organisation. Intelligence relationships can be both implicitly and explicitly built with the Smart Form or other input sources.

The SiD Secure Collection framework not only handles the secure authenticated transmission of data – it provides the ability to deploy on disconnected and mobile devices. Data transmission queuing is automated to allow a secure transfer once connection to a network is established.

Component Plug-in Model

Component Plug-in Model



Benefits of SiD Secure Collection

Automation – significantly reduces the collection and analysis phases of an operation

Accuracy – high degree of service quality, synchronised information

Scalability – remote intelligent data input/capture reducing bottlenecks

Data Flexibility – exactly matches an organisation's information needs at low cost

Secure information transfer – protection of information to appropriate classification level

Product Features

- Automated Intelligence capture
 - Operate Remote – operate Mobile
 - Data-based validation
 - Security
 - Security across multiple operations
 - Dynamic project load
-

Automated Intelligence Capture

Automated Intelligence Capture provides the means for Intelligence data from multiple sources (as well as the SiD Smart Forms themselves) to be pre-processed directly into the structured intelligence model of any database repository.

Management of the secure transmission of data and the duplicate resolution on loading are all handled as part of the Secure Collection framework. Automated intelligence capture is delivered in a number of plug-in products:

- SiD Smart Forms
 - SiD Classifier
 - SiD ike 304 interface
 - SiD Import.
-

Operate Remote and Disconnected

SiD Secure Collection brings the flexibility of remote intelligence capture, operating anywhere on the world-wide web, and in a mobile mode – detached from any network.

The custom form feature allows each business process to have its own forms – therefore the information content can be presented relevant to the current process. It also means in the remote sense that minimal “sketch” information can be gathered in the field – then extended once the information is brought back and access to other research sources is available.

The application automatically detects when connection occurs to allow re-synchronization of data. Data can be transmitted from anywhere on the web with security assured.

Data-based validation

Full data-based validation is provided with the SiD Smart Forms link directly to the host data base meta-data which describes validation and lists of lookup values. There is no re-keying of critical data and data validation at source guide users to high quality input.

Features include:

- Data list values
- Range checks
- Data type checks
- Value dependency checks
- Duplicate checking

Data contents can be re-synchronized with the host database at any time. This means that new lookups can be downloaded from the host – along with any meta-data, forms and data changes with minimal business impact.

Security

The SiD Secure Collection application provides full user authentication including authentication modes for disconnected users. Transmission is encrypted with base levels SSL/SSL2 – with provision for plug-in security to higher levels as required.

The application uses a cryptographic module which provides a base level of HTTPS encryption that has been certified to FIPS 140 level. FIPS 140 covers areas such as security functionality, protection profiles, random number generators and key establishment techniques. The plug-in capability provides virtually unlimited security extension.

Security Across Multiple Operations

The SiD Smart Forms now provides, where required, secure submission of Smart Forms into any Operation the user is able to log into. Once logged into an Operation the Smart Forms created will only be lodged into that Operation. To change the form submission to a different Operation, the user must log into that Operation. This maintains the security of information across Operations.

Dynamic Project Load

Project categories within SiD provide a powerful means of electronic filing. In many organisations projects may change frequently. This facility provides authenticated database connection for the user concerned – to ensure any projects assigned on the Smart forms are as up to date as possible.

When operating in disconnected mode the project list is cached with the most recent list of projects – to allow the user to select from this existing list.

Product Modules

SiD Secure Collection (SiD SC) is made up of a core module and a number of component modules that can be licensed individually.

The component modules are:

- SiD Smart Forms
- SiD Classifier
- SiD ike 304 interface
- SiD Import
- SiD Smart Form Designer Service.

The screenshot displays the 'SiD Smart Forms Design Time Environment - New SmartForm (Unsaved)' window. The central area shows a 'Person Smart Form' with the following fields:

- First Name: John
- Middle Name: (empty)
- Surname: Smith
- Address: 125a Main St
- Employer: (empty)
- Photograph: (Image of a man with a mustache)
- Date of Birth: 16/04/1964
- Gender: MALE
- Occupation: (empty)
- Salary: \$ 0.00
- Related Vehicle: Colour (Green), Make (CAMPERVAN), Model (empty), RegistrationNo. (ABC123)

Annotations include an arrow pointing to the 'Layout' section of the toolbox labeled 'Format and Layout', and an arrow pointing to the 'Designer Items' panel labeled 'Intelligence Meta-Data'.

SiD Smart Forms

SiD Smart Forms bring automatic association and linking, generation of profiles and information categorization to the intelligent capture of information. SiD Smart Forms can be custom designed to identify the key intelligence content of the information from any organization – the intelligence can be extracted from the base data entry process. Key intelligence relationships to be automatically configured into the data entry process – although the base data entry appears to simply fill in the form – all the intelligence inter-relationships and profiles inherent in that data are automatically captured in a structured form.

Entity recognition is provided to allow pre-configured detection of certain form elements as entities – and to implicitly or explicitly generate associations between entities.

Workflow process

SiD Smart Forms can model existing business work-flow processes exactly as required. A complete form-based process can be implemented with custom Smart Forms for each step.

A SiD Smart Form can have all the details entered into one form or, as shown in the example above, you can have one main form with related forms for vehicle, person details associated with the main form. Automatic links (associations) are created for example if you have a field on your Person form called "Driver", the SiD Smart Form could create a link (association) of "driver of" to the Vehicle.

When a SiD Smart Form is saved it will include:

- entities (objects) that have been created
- what projects it is related to
- links (associations) that have been created
- attachments (any Windows file types, eg image, video, sound, i2 Link Chart)
- flags (alerts) on entities

Pre-processing includes the entity recognition, association linking and validation of data. There is also a capability for quarantine and review of data prior to actual database import.

SiD Smart Form Design

Design of Smart Forms is delivered as a low cost service with full consultation with business users. The design process optimises analytical shortcuts which can be obtained by automatic linking of entities from the information captured on the Smart Form itself. This means that the data imported to SiD comes in fully cross-referenced to the people or organisations, species, events and other details related to the investigation.

Features:

- Form layouts to match business needs or replicate existing paper forms
- Vertical and horizontal sizing options
- Images and logos supported
- Repeating groups, List boxes, Check boxes, Radio buttons and all standard text controls
- Line, panel frames, multi-column formatting options supported
- Native and extended validation rules can be applied
- Data content matched exactly to business needs

Each business process can have its own custom forms – therefore the information content can be presented relevant to the current process.

SiD Classifier

SiD Classifier provides a pre-classification and categorisation of unstructured information – to enable it to be transformed into a structured intelligence model. This mechanism provides a time-saving first-cut analysis of bulk input.

The bulk document import and classification mechanism transforms unstructured text content into structured intelligence based on defined analysis patterns and items of interest (entities and associations, categories and topics).

SiD Classifier identifies the following based on custom defined patterns of interest

- Entities
- Associations
- Topics and key terms
- Categories

SiD Classifier uses the Secure Collection intelligence model to generate input to that model in the required structure. The Classifier plugs-in to the SiD Secure Collection framework to allow secure authenticated transmission.

SiD iKe 304 Interface

SiD ike 304 interface is a remote field capture device providing a complete package of information about a particular facility. This includes a photograph and a precise GPS reference of that facility – along with other form recorded intelligence. This package of information is then managed through the SiD Secure Collection framework to securely transmit and import into SiD or another intelligence repository.

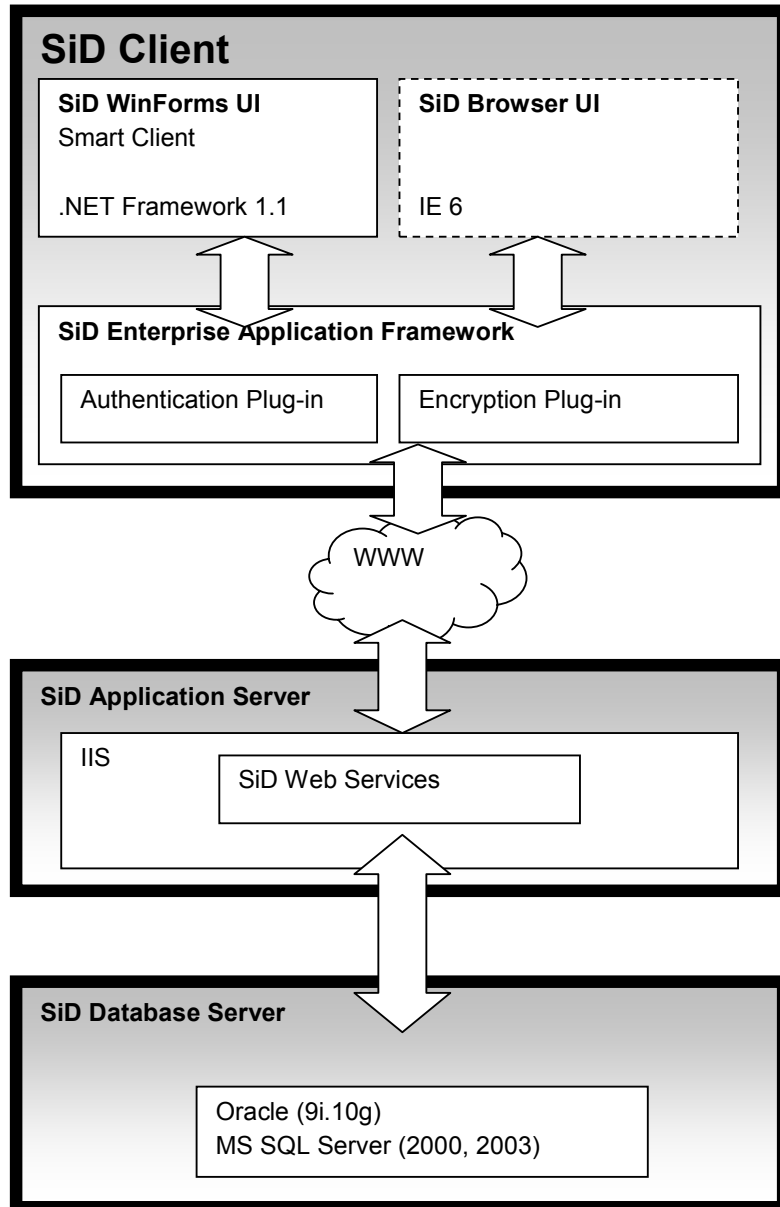
The ike device consists of a ruggedised hand-held device including a computer processor, GPS, laser distance finder, compass and digital camera. This combination allows a snap-shot to be taken of a facility with its exact geo-location reference and a photo. This base information can be extended with a custom form to add additional intelligence information.

The device can operate in disconnected mode and downloading can occur whenever a connection to a network can occur. Secure data transmission is then managed by the SiD Secure Collection framework.

SiD Import

SiD Import is an embedded facility within the core SiD product. This facility allows extraction of intelligence information from structured database sources. A unique schema mapping capability models information from a database schema to be imported into SiD – extending the overall intelligence association picture.

Technology Architecture



Web Services

SiD Secure Collection provides a model of form building, intelligence capture and deployment that supports all the necessary web service frame work including:

- Authentication
- Security and encryption
- Remote and disconnected use (including management of multi-user data update contention)
- Transmission management
- Web service management
- Form design capability with full layout and validation

Delivered with the SiD Secure Collection application is all the necessary web services plumbing to handle the input and point to point data delivery requirements of any application. Data transmission and upload capabilities include full management of disconnected operation – with dirty-data update contention management.

These framework services support a generic forms capability that is totally adaptable to other applications. The SiD Secure Collection domain model has been designed to allow the independent operation of any specific application.

The transmission of the resulting data is in an XML definition format – which is mapped to a model specific to the application database allowing loading of data to any database.

Technology

The SiD Secure Collection application operates within a Smart Client interface which is an n-tier web service model providing global communication flexibility via the web with security plug ins for authentication and encryption, plus options for disconnected operation.

The web services model operates with a scaleable application server layer on Microsoft IIS and all the advantages of user interface power driven by Microsoft .NET client framework. The unique Application Framework underpinning the SiD Secure Collection application also allows synchronisation of definitions when changes are made to the underlying intelligence model. Data exchange is via XML – with an open standard for information exchange.

Scalability

Under a n-tier architecture with scalable application servers SiD Secure Collection is able to provide as much bandwidth as needed. Application Servers operate independently so you can duplicate as many times as is necessary to ale to meet the requirements.

Literally the scalability options are unlimited in terms of the users (or information sources) that may be supported. The independent application server scalability allows any number of servers to be applied to the user/transaction load.

For example, in an emergency situation where an up to date picture is required as quickly as possible, high volumes of information can be input into the system using SiD Smart Forms which can be remotely deployed to allow other agencies to submit information in a fully secure manner.

SiD Smart Forms compared to Word templates

Fundamentally there is no comparison in capability between SiD Smart Forms and Word templates – SiD Smart Forms do a totally different job to Word Templates.

SiD Smart Forms are an information processing capability. A Word template is a static form building and data entry capability. SiD Smart Forms provide a secure web communications framework – with web service processing capability into a host database including management of disconnected operation – with dirty-data update contention management.

SiD Smart Forms provide an authentication and plug-in transmission security options. Word templates provide no security model or transmission capability – other than securing the resulting documents.

Word templates are manual stand-alone forms that produce static word data which needs to be processed (extensively) to do anything useful with it. There is no data loading capability. A Word template has no knowledge of any intelligence or data rules, and no data-sourced lookup capability.

SiD Smart Forms provide full validation based on the host database data requirements – Word Templates can only provide manually coded lists and basic validation – it provides no mechanism for dynamic cognisance of changes to host database rules.

SiD Smart Forms can resynchronise with the host database for changes in meta-data, lookups, validation rules and forms design at any time. Word templates have to be manually built and individually deployed with any changes (ie if there are 5000 users – 5000 Templates would have to be physically distributed).
