



ASITE PLATFORM OVERVIEW

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1 Platform Overview

Asite's vision is to connect people and help the world build better.

Asite's platform enables organisations working on large capital projects to come together, plan, design, and build with seamless information sharing across the entire supply chain.

It provides access to key information regardless of location or device, and improves collaboration which results in fewer mistakes, delivering huge time and cost saving.

1.1 Introduction

Asite's award-winning platform is an HTML5 cloud solution which allows high performance speed, portability between different platforms such as Apple iOS, Windows and Android, and the ability to work on any browser, including Firefox, Chrome and Safari. It has a suite of integrated modules, globally hosted as a Software as a Service (SaaS) platform, allowing users to share information and work together in real-time.

Asite is headquartered in London's Tech City in the UK, with North American operations based in New York, and regional offices in Australia, India, UAE and South Africa. Asite's platform gives everyone involved in construction and facilities projects access to key information regardless of location or device. It enables increased collaborations which results in fewer mistakes, delivering huge time and cost saving. It also allows firms to store and manage all project data in one central and secure repository. It is a bespoke platform which allows the clients to fully configure the structure of their content with highly controlled access and rich workflows and build better.

The platform supports over 360 different file types that can be opened via our online HTML viewer, removing the requirement for investment in IT infrastructure. This allows project teams to work seamlessly from anywhere with full online and offline capabilities. It is customisable and can be personalised to suit business requirements. Dashboards can be configured either at organisation or individual user level to ensure optimum transparency and access to key information at the touch of a button.

1.2 Global Compliance

Asite is a global platform which is supported 24/7/365 and backed up by our extensive investment in infrastructure, in partnership with Dimension Data. This ensures unparalleled security and reliability to our clients – audited and accredited by governments internationally.

Compliance:

- Tier 4 Disaster Recovery and Real-Time Data Replication
- SSAE-16 Type 2 and Sarbanes-Oxley Compliance - Audited
- EU-U.S. Privacy Shield Framework
- EU Model Clauses Compliance

- Dimension Data Global SaaS Infrastructure Partner
- Verizon Web Acceleration and Edge Networks – International Scale
- UK Government Security Assurance – Audited HMG IS1 – OFFICIAL - SENSITIVE
- Cyber Essentials Certified
- PCI DSS Compliance - Audited
- ISO 27001 Compliance
- Microsoft Certified Partner
- CSA Star Certified
- LEED Gold / EPA Energy Star Datacentre Certification

1.3 Product Offerings

Asite CDE is our Common Data Environment which gives you and your extended supply chain shared visibility of your capital projects.

It includes:

- Document Management
- Intelligent Forms – AppBuilder
- Design & Construction Management Workflows
- Digital Engineering and Collaborative BIM
- ISO 19650 Compliance

Asite SCM is our supply chain management solution, which helps capital project owners and Tier-1 contractors to integrate and manage their extended supply chain for delivering on capital projects.

It includes:

- Supply Chain Portal
- Construction Plan Rooms
- Subcontractor Pre-Qualification
- Bid and RFP Management
- Supplier Catalogue Management

Together they enable organisations to build digital engineering teams that can deliver digital twins.

1.4 Asite Customers

Asite's client base includes organisations from a range of different industry sectors, comprising Government, Financial Services, Health Services, Rail, Property and Housing, Education, Retail, Infrastructure and Resources, Facilities Management and Architectural, Engineering and Construction (AEC) amongst others.

Over 500,000 users use Asite, with the software being used on capital projects and infrastructure developments in countries worldwide. As part of these projects, Asite has played an integral role in the development of landmark projects globally, to learn more about our client base, including in-depth details of our work including case studies and testimonials, please visit our website:

<https://www.asite.com/case-studies-and-testimonials>

1.5 Awards

Asite has been recognised as an industry leader in cloud-based collaboration software, winning ten major awards in the past ten years at the Construction Computing Awards:

- Cloud Technology of the Year 2019
- Best Use of IT in a Construction Project 2019
- Collaboration Project of the Year 2018 with Cambridge University for the Cambridge University CDE
- Best Use of IT in an Infrastructure Project 2017
- Collaboration Project of the Year 2016
- Product of the Year & Cloud Based Technology of the Year 2015
- Document and Content Management Product of the Year & Public Sector IT Project of the Year 2014
- Public Sector IT Project of the Year for Crossrail and Document and Content Management Product of the Year 2013
- Document and Content Management Product of the Year 2012
- Project Planning Product of the Year 2011

2 Modules and Benefits

2.1 Document Management

Asite's Document Management solution provides users with a centralised repository for all files associated with a project. This interdisciplinary cloud-based system supports collaboration by enabling users to access, store, track, and manage all construction assets from one location. With Asite, the risk of data loss is greatly minimised, and any additional information regarding a document, including status and purpose of issue, is easily tracked and classified. Simply drag and drop documents directly onto the platform to leverage your full knowledge base.

Doc Ref	Doc Title	Date	Ver	Rev	Workflow Status	Purpose of Issue	Status	Publisher
ACH12345-EVC-PZ-FLT-CN-B-0001	Ventilation Layout Third Floor / Lower Roof Sheet 5 of 5	26-Jun-2020	1	P01.01	RUNNING	S2 - Suitable for Information	For Approval	Anus
ACH12345-EVC-PZ-GRY-AN-Y-0001	HV Earthing Schematic	26-Jun-2020	1	P01.01	COMPLETED	S0 - Initial Status	Work in Progress	Anus
ACH12345-EVC-PZ-ICU-CN-Z-0001	Emergency Voice Communication (EVC) System Schematic	26-Jun-2020	1	P01.01	COMPLETED	S0 - Initial Status	Work in Progress	Anus
ACH12345-EVC-PZ-GRY-RU-Z-0001	Combined Horizontal BWHC Model	26-Jun-2020	1	P01.01	COMPLETED	S0 - Initial Status	Work in Progress	Anus
ACH12345-EVC-PZ-GRY-CN-Z-0001	Small Power and Data Layout First Floor High Level Sheet 2 of 4	26-Jun-2020	1	P01.01	COMPLETED	S0 - Initial Status	Work in Progress	Anus
ACH12345-SCC-PZ-ICU-CN-Y-0001	MEP Roof Supports	26-Jun-2020	1	P01.01	RUNNING	S2 - Suitable for Information	For Approval	Anus
ACH12345-MCC-ZZ-CCU-DR-J-0001	Main Hall Wall Penetrations	26-Jun-2020	1	P01.01	COMPLETED	S0 - Initial Status	Work in Progress	Anus
ACH12345-TCC-ZZ-CCU-DR-B-0001	TVAC Wall Inlet Options-Option 1 Full Cleanroom Panel Wall	26-Jun-2020	1	P01.01	RUNNING	S3 - Suitable for Review an	For Approval	Anus
ACH12345-MCC-ZZ-CCU-DR-R-0001	Vibration Hall Wall Penetrations	26-Jun-2020	1	P01.01	RUNNING	S2 - Suitable for Information	For Approval	Anus
ACH12345-EVC-PZ-FLT-CN-D-0001	Ventilation Layout Second Floor Sheet 3 of 4	26-Jun-2020	1	001	RUNNING	Authorized and Accepted	Authorized as Published	Anus
ACH12345-EVC-PZ-FLT-CN-D-0002	Ventilation Layout Second Floor Sheet 4 of 4	26-Jun-2020	1	P01	RUNNING	S4 - Suitable for Stage App	Approved as Shared	Anus
ACH12345-EVC-GZ-AUD-HS-B-0001	Small Power and Data Layout Second Floor Low Level Sheet 3 of 4	26-Jun-2020	1	P01	RUNNING	Ready for Authorization	For Authorization	Anus
ACH12345-TCC-PZ-ICU-CN-B-0001	Small Power and Data Layout Second Floor High Level Sheet 2 of 4	26-Jun-2020	1	P01	COMPLETED	S3 - Suitable for Review an	Approved as Shared	Anus
ACH12345-EVC-GZ-EMD-DR-C-0001	X2 Programme	26-Jun-2020	1	01	--	S3 - Suitable for Review an	Prepublished	Anus
ACH12345-TCC-BZ-EYO-DR-Z-0001	Cleanroom 2 Wall Penetrations	25-Jun-2020	1	P01.01	RUNNING	S2 - Suitable for Information	For Approval	Anus
ACH12345-TCC-ZZ-EMD-DR-Z-0001	Cleanroom 1 Wall Penetrations	25-Jun-2020	1	P01	--	S2 - Suitable for Information	Prepublished	Anus
ACH12345-TCC-GZ-EPAU-DR-G-0001	Anteck Wall Penetrations	25-Jun-2020	1	P01	--	S0 - Initial Status	Prepublished	Anus
ACH12345-SCC-ZZ-CCU-DR-Z-0001	Air Penetration Key Plan	25-Jun-2020	1	P01	--	S0 - Initial Status	Prepublished	Anus
ACH12345-EVC-GZ-DER-DR-E-0001	Cleanroom Mockup Sketch Plans & Elevations	25-Jun-2020	1	P01	--	S0 - Initial Status	Prepublished	Anus
ACH12345-ASJ-ZZ-CCU-DR-A-0001	Cleanroom Mockup Sketch Section AA	25-Jun-2020	1	P01	--	S3 - Suitable for Review an	Prepublished	Anus
ACH12345-TCC-BZ-ATN-FIB-A-0001	Cleanroom Mockup Sketch Carline RB	25-Jun-2020	1	P01	--	S3 - Suitable for Review an	Prepublished	Anus

Automatic version control with full audit trail

The use of a centralised location saves time and reduces cost by keeping record of all versions created and modified by different users. This allows for an extensive audit trail and ensures that users have access to the most up-to-date information and data.

No information is physically deleted

All information is stored and superseded when a new revision is uploaded. While document revisions can be deactivated to restrict access to use, administrators have the capability to view the audit history when required

Email integration

Email integration allows users to store email communication with relevant tags and metadata, ensuring that critical information isn't lost, but available for consideration in the decision-making process.

Full control of information

The ability to define and assign user roles and privileges ensure that participants only see the information that is meant for them.

Track hard copies with QR stamps

While the solution promotes a paperless environment, printed documents can be QR code-stamped. This means that all information associated with that hard copy can easily be scanned and accessed.

Seamless integration with other systems

Asite offers direct integration as a service with other platforms, allowing a single view environment by pushing and pulling data from other software applications. The open API supports two-way data transfer with third-party platforms and software, including Salesforce, Bluebeam, and IFC. With File Viewer, users can view over 300 different file formats, which can also be stored on the system and downloaded for offline use without needing to install native software. The system allows for Microsoft Office, Autodesk Revit, and AutoCAD plug-ins, which allow users to upload directly to a pre-set location. Asite users are also able to share and view information through Microsoft Teams, Google Meet, and Zoom thanks to new integrations. This will allow teams to remain connected, with those working remotely having the ability to be virtually present with the field team onsite through video calls. Users can conduct meetings using their existing accounts, which means that meeting recipients will not be required to log into the Asite platform to join meetings. Meetings can be started instantly or scheduled through the integration, ensuring continual collaboration and communication between other team members and stakeholders.

Collaborative review

Comprehensive mark-up and red-lining tools allow users to annotate and comment on building and infrastructure model files. Users can overlay mark-ups to highlight the differences between files and ensure that relevant participants have access to the same information and project data. The system also offers a text comparison tool to note text changes in a document. Additionally, annotations and comments can be reviewed and marked as private or shared with a specific group of users.

aMessage

The platform's aMessage tool is a comprehensive instant messaging function, allowing platform users to communicate securely in real-time. aMessage allows users to safely message individuals or start group discussions along with the ability to share files. aMessage has entirely traceable audit information associated with every individual interaction, giving interaction transparency without the need for time-consuming searches through email threads. Furthermore, file accessibility can be controlled through the platform's complete user access control, meaning that messages and files can be made private.

2.2 Design & Construction Management Workflows

The Asite visual workflow manager provides an array of tools and inbuilt flexibility, ensuring all pre-existing business processes can be captured seamlessly. Workflow process automation removes that 'human error' risk and laborious manual tasks, meaning the project documentation can flow accordingly, on-time and to the appropriate user group. The visual workflow designer provides a true representation of people, projects

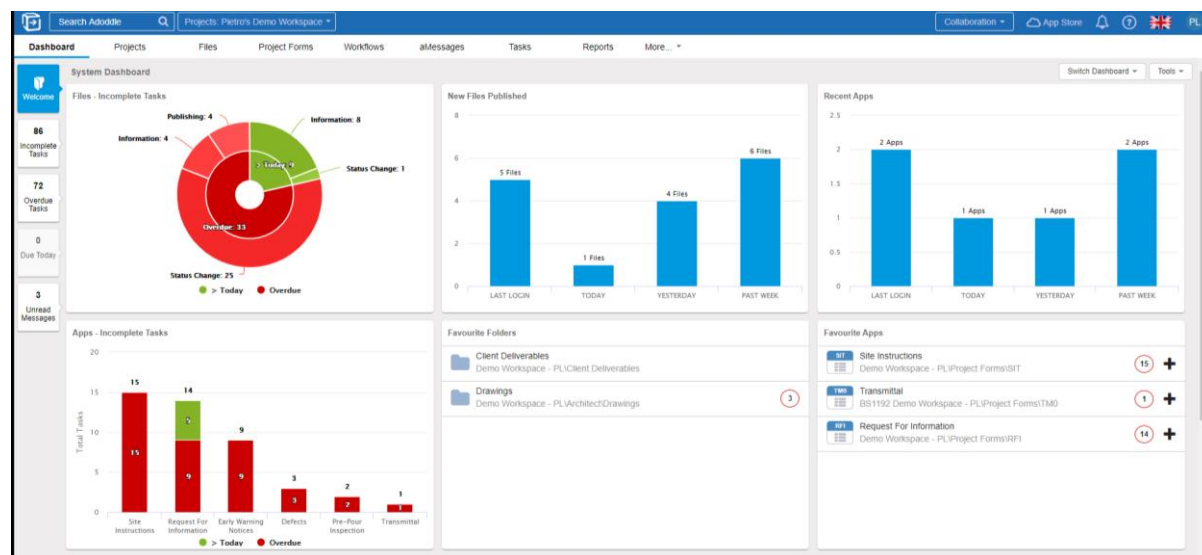
and processes, all in one holistic view of the business and its stakeholders. Workflows are created and constructed graphically using a number of steps. The 'drag-and-drop' design tool allows an unlimited number of internal workflows to suit every project need. Workflow tasks, information and documents/forms are passed from one participant to another for an action, according to a pre-defined set of rules.

Clients can build and schedule bespoke workflows, including automatic workflow status reports and document review reminders, to automate your processes with full audit control and project visibility. The solution prevents information and knowledge from being lost during complex design and construction processes and supports multiple different plugins for seamless integration. This enables smarter project management and allows project teams to maintain a clear and comprehensive audit trail.

Dashboards & cross-project reporting

The platform allows clients to build and manage their own shareable dashboards to visualise project information. Data from across the project can be built in a tailored dashboard showing users the most up-to-date information when they first enter the project platform.

Similarly, reports can be designed and run through the Asite platform. Choose from an extensive library of information-rich reports from across projects or easily build custom reports that can be scheduled to run at any time or to run continuously throughout the project lifecycle. When issued, these reports can also be automated to send to chosen members of the project team via email or automatically updated on their Asite dashboard.



Drawings & specifications

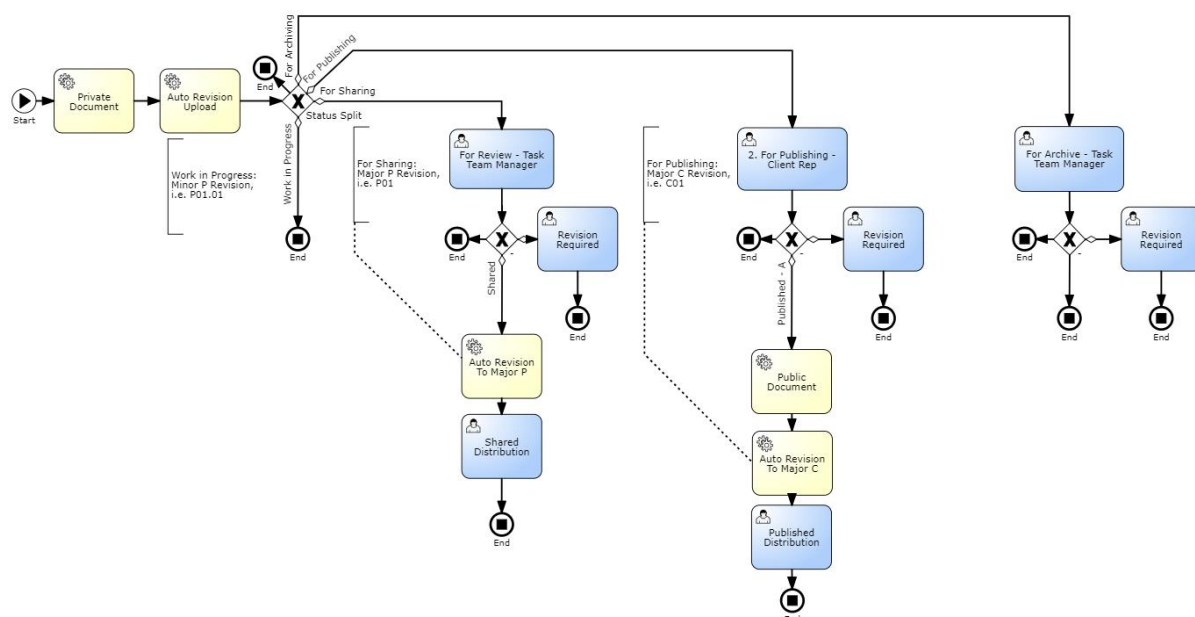
Drawings and specifications can be stored, shared, and edited, with the capability to view over 300 file types without requiring the native software. Search, mark up, and report on drawings and submittals. Place deadlines and milestones on drawings and specifications enabling clear workflows on all project information. Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) are both compatible with the Asite platform.

Visual workflows & automated approvals

Visual workflows show the processes of the project, displaying all of the steps involved and how they connect. Build bespoke workflows to suit project preferences, including scheduling automatic workflow status reports and setting automated document review reminders.

Seamless integration

The Asite platform supports multiple different plugins allowing seamless integration. These plugins include Microsoft Office, SharePoint, Microsoft Dynamics, SAP, Sage, OPENTEXT, Autodesk Revit, EMC², COINS, ORACLE, Bentley and TEKLA.



The above demonstrates a typical business process and the various branches required to reach the completed state. There are three main 'conditional' routes, For Sharing, For Publishing and For Archiving. Each route has different tasks assigned to users, usually defined by the upload trigger and which stage the document is at. If the document is ready for the client to authorise, then the user would upload the document 'For Publishing'.

Yellow boxes within the workflow design represent the system tasks which are configured and are actioned by the Asite system, such as document privacy upon upload.

The blue boxes represent the user tasks to be actioned by a certain user group or individual, in the above example the Task Team Manager will have a 'status change' action which will determine the next route the document takes on this decision.

Asite fully supports BIM level projects and incorporates international standards within the industry, such as the ISO19650, BS1192 and PAS1192.

2.3 Tender Management

Asite's Tender Management solution provides clients with a secure platform to build, invite, and communicate your tenders to an unlimited number of bidders.

Users are provided with a best-practice template for tender invitations which can be easily populated and issued - default data in the form can also be set to client requirements. Documentation and information relating to each company's specific tender can be attached to and/or associated with the form. This process reduces the complexity and time involved in developing tenders.

Bidders are invited onto Asite's platform and given access to the tender form. Here communication works in both directions; clarifications and questions are sent between the two parties involved, ultimately leading to bids submission. Forms can also be edited once they are raised, allowing additional information to be added to the tender form and additional bidders to be added to the process. Tenders are submitted on the platform, meaning all submissions are in one secure location and can be accessed by the tender team and ultimately rewarded.

Raising tender forms

When raising tender forms, the Tender Management solution allows the project team involved in the tender process to collaborate and collate information needed for the bid in a simple process. Users can specify the exact information that they require the bidder to provide and quickly and easily change this on a tender-by-tender basis. Controlling the format of the information coming back from the bidders makes evaluation easier and saves further time and effort.

Editing tender forms

Once a tender form has been raised, it can be edited to include addendums to the initial tender. This allows additional information to be added, which may be useful for the bidders. Within the tender form, there is also an option to issue an invitation to new subcontractors to allow them to bid for the tender, allowing new suppliers to enter the bid process.

Selecting suppliers

The platform allows clients to import their private suppliers, organise them with custom classification schemes, and enable them to maintain their data on the platform. The bid controller can send an Invitation to Bid to request selected suppliers to participate. The controller can also access real-time online reporting to identify who had accepted the invitation and when they viewed the document. Users can also pre-qualify and compare contractors with custom apps and view scoring reports.

Security

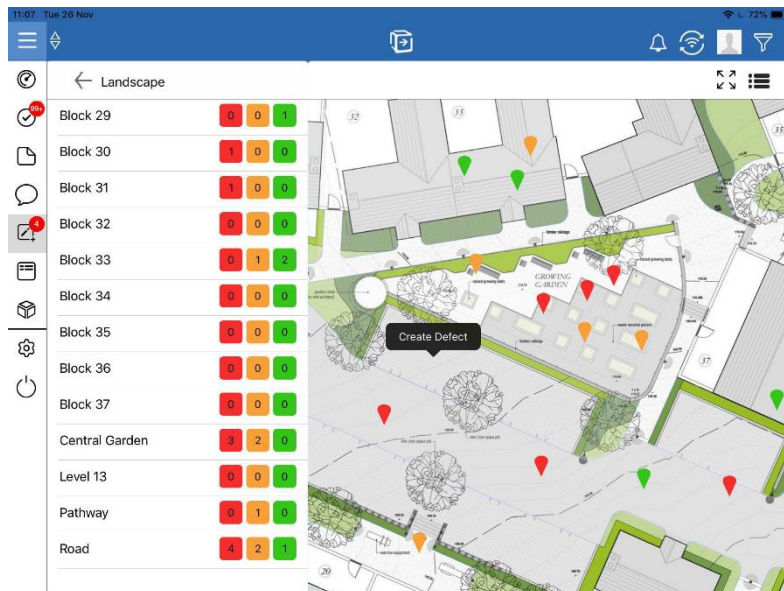
The platform also has a separate secure bid submission area and a robust audit trail which ensures that bidders receive all communications, and the inbuilt security means that Bcc'ing bidders into e-mails is no longer necessary. By managing tenders through one consistent tool, users also get the bonus of a clear log of all of the communications, making it easy for all bidders to have been treated in the same manner.

Bidder access

Users can securely invite multiple bidding organizations onto the Asite platform to conduct a competitive tender, allow a bidder's access to a tender document set, and communicate with the bidders to answer queries and request clarifications. Throughout all stages of the tender process, the project team can communicate clearly and efficiently with bidders.

2.4 Field Management

Asite's Field Management App enables project collaboration on the move or anywhere on-site. With this tool, users can publish and share drawings, photos, and files at any time as well as set tasks. The tool ensures that those working on-site always have access to the latest project information and can immediately raise and create site tasks, such as defects and snags, on the App.



Dashboards

The user-friendly interface provides users with a real-time dashboard highlighting the status of their tasks. Aspects of the workspace can be 'pinned' to a user's device, such as viewing files, raising project forms, and model viewing and navigation. The home screen of the Field Management App ensures that those based on-site can track all task-related activity, including deadlines and milestones.

Defects management

With the App, users can use their smartphone or tablet device to track and raise site tasks such as defects, snags, issues, damages, and outstanding works. Site tasks are easily found in the list or location view, which allows users to pinpoint the exact location of a raised task.

Drawing calibrations

The Field Management App supports the calibration of zones on a drawing plan to

automatically populate the 'location' field within the form. Essentially, as a site task form is filled out, the 'location' field will prepopulate based on where the user has selected on a plan or drawing, greatly reducing the risk of human error.

Document management on the go

Drawings and documents can be accessed from any device with the App. Users can carry out various activities while on-site, including uploading files, updating task statuses, reviewing file content (such as audit history), and comment on, mark-up and navigate models.

Offline functionality

The Field Management App offers functionality in an 'offline environment'. This allows users to access all site locations on a calibrated plan and raise site tasks with supporting media from the device, such as photos. Once the device obtains a network connection, changes made when offline will automatically synchronize across to the web and allocate user tasks accordingly.

Model viewing

Users can view, navigate, and mark-up model files as well as access different views and take screenshots - actions can also be issued to project team members.

2.5 Asite Navigator

Asite navigator is a computer application that helps users manage files between their office and Asite DMS, giving advanced document management and synchronisation capabilities. By setting local working folders on a PC, Network or even internal Electronic DMS, users can tell Asite navigator where they store versions of files that they send or receive via Asite.

Checking in and checking out documents

If users need to revise a file that exists in Asite, Asite navigator can be used to check-out the file for editing. The document will appear to other users as being "locked for editing" so they know it is being edited, and when finished, users can check-in the document and share the new version with the rest of the team at the touch of a button. Navigator takes care of where the document needs to go, leaving users to concentrate on the content of the document.

Version control

Navigator also makes it easier to manage local copies of documents if an individual or group needs to keep a copy of the latest version. It lets users know when files they have synchronised to their working folder have been revised in Asite, and vice versa. When receiving CAD models from other parties which are constantly being revised, Navigator can audit all of the files and tell users which ones are out of date.

Offline working

For users who are constantly on the move, Navigator also allows them to mark workspaces for offline working, and copy files and listing information to a computer so that they can view and work on it when not connected to the internet. Once re-connected, Navigator can sync

any changes meaning that not having an internet connection no longer means not being able to work.

2.6 Contract Management

Asite's Contract Management solution gives clients real-time visibility and control across their contract process, greatly reducing risk on the project. The tool provides clients with a secure system to send notifications, and by assigning time-based actions, it helps ensure that contractors reply within the agreed timescales. It also provides a centralised auditable view of notifications across all contracts, ensuring project team members are using the same information.

New Engineering Construction (NEC)

When first introduced, digital contract management for New Engineering Construction (NEC) was truly revolutionary. Employers and contractors required complete oversight of all the notifications on project contracts to ensure that replies were sent within the default period.

With Asite's NEC Manager, teams are aware of their current project status at all times and won't fail to remember to send critical notifications to others. NEC Manager provides the visibility and control that all parties need to keep the project on track. This set of contract guidelines are suitable for any construction-based contract between client and contractor. Used for appointing contractors at all levels of design responsibility, it is suitable for any sector, including civil, building, nuclear, and oil and gas to name a few.

Engineering and Construction Contract (ECC) is the most frequently used contract from the NEC family and has been used on both high profile and every day projects such as infrastructure, buildings and highways. Offering flexibility, clarity and greater ease of use, ECC enables users to deliver projects on time, on budget and to the highest standard.

Asite provides solutions for the different family of contracts in NEC, including NEC3 and NEC4:

- **NEC3:** NEC3 offers a complete end-to-end project management solution for the entire project lifecycle; from planning, defining legal relationships and procurement works, all the way through to project completion, management, and beyond.
- **NEC4:** NEC4 is an evolution on the successful NEC3. Its contracts reflect procurement and project management developments and emerging best practice, with improvements in flexibility, clarity and the ease of administration.

NEC4 is suitable for procuring a full array of works, services and supply, ranging from major frameworks to small-scale projects.

Joint Contracts Tribunal (JCT)

Asite supports the Joint Contracts Tribunal (JCT) family of contracts — a set of standard documents used by the building industry to deliver a project. JCT contracts facilitate the delivery a building project. They set out the responsibilities of all the parties within the

process and their obligations to each other. The contracts make it clear what work needs to be done, the contractors working on the projects, and the financial cost of the work.

Using standardised forms to reduce the cost involved when entering into a contract, they also provide a benchmark of provisions to ensure all necessary information is included while redundant information remains excluded. A JCT contract is well recognised by the professional team and building contractors, and reduces the amount of time and resources required to start construction projects.

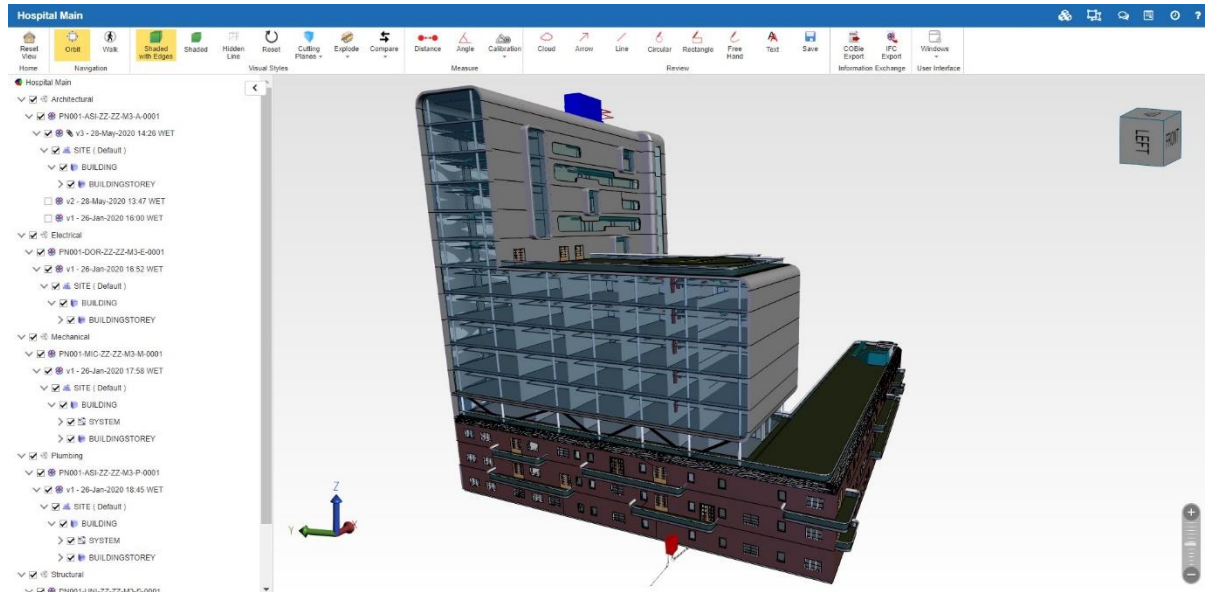
Case study: International Federation of Consulting Engineers

Asite has recently implemented digital contract management for FIDIC Management, also known as the International Federation of Consulting Engineers. This is the global representative body for national associations of consulting engineers, and represents over one million engineering professionals and 40,000 firms in more than 100 countries worldwide.

The Asite team developed a Contract Management solution that was based upon the FIDIC contract type; operation will be similar to that of the current NEC offering within Asite, but with workflow and form's design based upon the FIDIC books. Also included in the design of the digital contract management for FIDIC is a method for managing workflows between forms. This ensures that in the event of variations, the correct parties are automatically notified.

2.7 Collaborative BIM (cBIM) Management

Asite's collaborative Building Information Model (cBIM) Manager works to improve the entire construction process by facilitating secure communication between those working on a project. Participants can view, search and coordinate issues around objects within both individual and federated models, which enhance collaboration and visibility through the whole project lifecycle. Additionally, while managing models, users can reference documents and electronic forms stored within the Common Data Environment (CDE) to further enrich communications.



Single source of truth

All versions of a model and its associated data are stored and updated in a centralized CDE, and can be referred back to. This cloud-based solution offers a single reference, ensuring all decisions made throughout a project are based on the same data.

BIM collaboration and approvals

Asite's cloud-based CDE supports the management of the review process, allowing users to mark-up and comments on models, and 'check out' files to prevent further edits. Federate multiple model files from different project partners in a central model, enabling interoperability between disciplines and reducing errors from designing in isolation.

Workflow control

Automate company processes and provide governance at key decision-making points. The system allows administrators to track, control and coordinate workflows, reducing risk and improving project timeline estimates.

Version tracking and auditability

The cBIM solution ensures the maintenance of a clear audit trail by tracking version control to the model and providing access to the full history of every file. All revisions are timestamped and stored in the CDE, which allows for changes to revisions to be compared against user actions.

As-built

Store as-built information in the cloud to make project handovers easier and faster at any stage in the project lifecycle or after. As-built documents can be directly associated with model objects to support the facilities management process and any later renovations.

Supports open and native formats

Asite's cBIM viewer supports both the federation of IFC files and collaboration around Revit

files. Our plug-in speeds up the movement of model files into Asite directly from Revit. COBie data can be exported to facilitate the management of assets.

Facilitate procurement

Users can create project forms as well as schedules, Bills of Quantities and Invitation to Tenders from component listings.

2.8 Facilities & Asset Management

Asite's assets and facilities management solution allows clients to store as-built information in the cloud, including drawings, models, certificates and invoices, to ensure that it is secure and accessible to project teams whenever and wherever it is needed. The total management solutions suit all business needs while providing clients with a list of assets and facilities information that is readily available, preventing time-consuming and expensive audits. Information is gathered throughout the project lifecycle, so all asset information is available and accurate during the project and beyond.

Maintenance schedules

The platform allows clients to manage their schedules in a full-scale asset management solution available anytime, anywhere. It also generates schedules for preventative maintenance work orders for specific assets, locations, or routes by assigning one or more job plans to the record. The platform allows clear and easy navigation and access information with a full audit trail available for all actions executed.

Inventory planning

Using Asite, clients can create a centrally managed, seamless procurement process. Ordering items is simplified as clients can manage catalogue data for price-sensitive items, electronically receive orders from buyers, create advance shipping notes and issue to buyers, and create invoices from orders upon order fulfilment.

Asset information modelling

Asite provides complete asset information model management. Clients can upload and share their 3D Model files online to collaboratively review and mark-up model files and exchange data from 3D BIM Collaborative environments, as well as search various objects, revisions and associated documents within all AEC disciplines. Maintaining a clear audit trail is simplified as the platform tracks version control and any updates made to the files and models.

Information handover

As-Built drawings, O&M documentation and safety information develop throughout the project making for a more efficient handover. The platform allows users to handover a compliant, complete, and professional digital or cloud-based project record. Asite supports hosting O&M documentation allowing all information to be kept in a central, secure location. Through Asite users can also associate tags with O&M related files to ease the searching process and package them into an interactive form.

Host O&M information

Digital O&M Manuals are built into your project as a submittal requirement, meaning they will be ready with the project upon handover. Digital manuals can be updated whenever facility equipment changes, keeping the integrity of your asset in a single location. As pages cannot be removed or deleted, valuable information cannot be lost in the maintenance or repair process.

Construction Operations Building Information Exchange (COBie) on the Adoddle platform imports and exports all information, allowing all assets within the model to be updated inside or outside the model. The platform also allows users to link models to the latest as-built information. Users can track assets and inventory, locate equipment, property, and warranty information, track costs through the lifecycle gaining a comprehensive overview of your projects.

2.9 Vendor Marketplace for Subcontractors

With Asite's Vendor Marketplace, subcontractors can promote their products and services using rich content to a wide range of leading industry organisations.

Once a member, the subcontractor's profile will be searchable within the portal. Capital project owners will be able to find profiles using various filters, including geographical locations and business function, helping to increase a client's visibility across some of the industry's biggest projects.

Pre-qualify for work with project owners

Users can manage and track any pre-qualification information in one, secure location. The Asite Marketplace provides subcontractors with a seamless, automated pre-qualification process; input pre-qualification responses into the portal once and have easy and quick access to all pre-saved answers when applying for the next project.

Public project procurement portal

The Asite Marketplace has been integrated with the OJEU, allowing subcontractors to view and apply for the latest public projects.

Participate in bids and RFI's

Communicate with capital project owners throughout the entire bid process, including the submitting, evaluation and awarding of contracts. Manage product catalogues with efficiency; publish and edit catalogue items in bulk supported by rich media, such as images.

eInvoicing

Buyers and supplier's systems are seamlessly integrated to enable efficient tracking of invoices and payments.

2.10 AppBuilder

AppBuilder enables project teams to accelerate business workflows or scale internal operations through converting complex paper-based processes into secure web-based forms, bringing control and visibility to all projects.

Whether you use internal forms to track expenses and holiday requests or forms - such as Technical Queries (TQ), Requests for Information (RFI) and Change Requests (CRF) - which need to be directed between various organisations or departments, Asite can design project forms to streamline your processes.

Utilising Asite's powerful online AppBuilder HTML5 Designer or Microsoft InfoPath (part of the Office Suite), forms can be built and used by project teams with ease. The simple drag and drop interface make designing easy and allows for the creation of tailored forms that suit any requirement.

Bespoke customisation

AppBuilder is fully customisable and enables users to change the look and feel to meet their needs and organisational branding. It's simple to design a form from scratch or use one of Asite's best practice templates, making it easy to gain control of numerous processes. Once built, forms can be routed to the right people and easily tracked to establish progress, helping ensure processes run smoothly with minimal or no tweaks.

Seamless integration

Through applying smart and intelligent logic, Asite's tool enables project teams to build a rich interface with formatting and validations to support and enhance the flow of information. Project teams will benefit from seamless collaboration both online and offline, regardless of their device. AppBuilder also connects with other data and services using dynamic attributes and APIs, including support for eSignatures to complete approvals and authorizations, to increase efficiency of day-to-day tasks.

App library

The app library is a one-stop-shop for business and IT leaders looking to satisfy specific unstructured process or challenges in the fastest, easiest way possible. The tool has a scalable, multi-tenant cloud infrastructure for building complex, enterprise-grade applications that deliver ease of use, speed of implementation, security, and performance. It is a single repository where users can access any pre-built solution to meet specific business needs.

Form examples:

- Bid Manager
- Site Manager
- Work Order Management
- Timesheets
- Submittals
- Procurement Manager
- Meeting Minutes

- Contract Manager

2.11 Information Delivery Plan (IDP)

Asite's IDP capability is a digital solution to the existing cumbersome and most importantly, the manual task of creating and maintaining spreadsheets of deliverables expected from your supply chain, referred to by the ISO 19650 as the Master and Task Information Delivery Plans (MIDP and TIDP respectively). The IDP capability is a tool that enables users to proactively manage project information with real-time tracking of deliverables as they are published in the Common Data Environment (CDE).

Ref	Deliverable	NF	Ass	3DMF	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	
DT0000	Design Information																		
DT1000	DT1000 Architectural		Y	N	N														
#	Title	Vol	Loc	Typ	Role	Num	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	
DT1000.1	GA Ground Floor	ZZ	00	DR	A	0001													
DT1000.2	GA First Floor	ZZ	01	DR	A	0001													
DT1000.3	West Elevation	ZZ	ZZ	DR	A	0001													
DT1000.4	East Elevation	XX	ZZ	DR	A	DT1000_4													
DT1100	DT1100 Structural		Y	N	N														
#	Title	Vol	Loc	Typ	Role	Num	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	
DT1100.1	Structural Schematic Plan	ZZ	ZZ	DR	S	0001													
DT1100.2	Foundation Plan	ZZ	FL	DR	S	0001													
DT1100.3	Structural Details	ZZ	ZZ	DR	S	0002													
DT1200	DT1200 Geotechnical		Y	N	N														
#	Title	Vol	Loc	Typ	Role	Num	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	
DT1200.1	Ground Investigation Report	ZZ	ZZ	RP	GT	0001													
DT1200.2	Geotechnical Design Report	ZZ	ZZ	RP	GT	0002													
DT1200.3	Retaining Wall Calculations	ZZ	ZZ	CA	GT	0001													
DT1300	DT1300 Mechanical		Y	N	N														
DT1400	DT1400 Electrical		Y	N	N														
DT1500	DT1500 Surveying		Y	N	Y														
PM0000	Project Management																		
PM1000	PM1000 Project Initiation		Y	N	N														
#	Title	Vol	Loc	Typ	Role	Num	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	Role	LOD	
PM1000.1	Project Start-up	ZZ	ZZ	TN	K	0001													
PM1000.2	Kick-Start Budget Approval	ZZ	ZZ	CP	Q	0001													
PM1000.3	Business Process	ZZ	ZZ	SG	PM	0001													
PM1100	PM1100 Project Management Plan		Y	N	N														

Collaborative

The platform's IDP module allows input from client and suppliers. It combines task IDP's from all suppliers and controls security rights.

Fully integrated

The digital solution is fully integrated into the CDE. Users have the ability to run reports from the platform on project delivery. It can be linked to existing project documents, operations, maintenance information as well as the CDE software platform.

Deliverable tracking

Users can see an overview of deliverables grouped by work packages or submittals. These deliverables can be tracked against key project milestones. The module also supports the creation of planned placeholders.

Fully reportable

With the platform's IDP, the real-time overview of deliverables is submitted directly into the CDE. Workflows can be triggered automatically from item delivery, and tasks can be tracked in detail with due dates. All of this information is delivered straight onto the IDP.

3 Security

3.1 Security Monitoring

The security of our platform is of the utmost importance to the Asite team. We have put measures in place to ensure all critical areas of the network are appropriately protected.

Our managed services partners, Dimension Data, utilizes an Intrusion Detection System that provides in depth defense by analyzing network traffic and blocking, replacing or alerting Asite when suspicious activity is detected. The system utilizes a rules-based language, which combines the benefits of signature, protocol and anomaly-based inspection methods. Rules are used to examine packets at both the IP protocol level and at the application level and can be set to look for specific occurrences of attacks against a protocol or set to look for the conditions of an attack.

The Asite Platform is continually monitored by multiple independent monitoring tools from reputable providers. Reports are generated outlining the uptime of the platform and detail any issues with the security status of components of the platform.

3.2 Logs, Auditing and Archiving

Comprehensive diagnostic logging is in place within the Platform. These are stored centrally and securely, and can be used by Administrators for diagnostic purposes. Asite boasts an extensive audit trail function through which all document history and activity is tracked and maintained, this ensures users have access to the most up-to-date information and data. Administrators also have the capability to view the audit history when required and can filter the data by their required criteria such as distribution and actions. The document audit history cannot be modified or deleted by anyone.

The document audit history logs the following activities for all revisions of a document, along with a date and time stamp:

- Document is viewed
- Comment is created
- Redactions, annotations and mark-ups created
- Action is assigned by a user or an automated workflow
- Assigned action is completed
- Link is shared
- Document is downloaded
- Document status change
- User action is cleared
- User action is deactivated or reactivated
- Document revision is deactivated or reactivated

Asite has a comprehensive Information Security Policy framework in place to ensure security is maintained. Reviews are regularly executed to ensure the policies and procedures

contained within the Information Security Policy document are being complied with and all information remains relevant.

At the end of the project or if required during the project Asite can provide an archive, that contains an export of all information uploaded to the platform during the project lifecycle. This information is usually provided either via a password-protected zip file that is made available to download by the client, or on an external drive that is shipped to the client. This needs to be connected to the USB port of a PC in order to be able to access the data. The external drives utilize a feature meaning that the data is encrypted. This ensures that in the event that the drive is lost in transit, the data cannot be accessed. In order to be able to decrypt the data, a password must be inputted. The data on the drive is provided in such a way that it can be viewed using a web browser.

Asite also provides archiving service whereby the data remains on the Asite platform, but in a read-only state. This is available for a reduced fee. The project status will be changed from 'open' to 'archived' and will remain accessible to the project team when required.

3.3 Vulnerability

All development processes are required to comply with the Open Web Application Security Project (OWASP) Top 10 vulnerabilities. Following the platform undergoing any substantial changes vulnerability scans are carried out to ensure no new vulnerability has introduced inadvertently.

All communication channels between the users and the Asite servers are encrypted using HTTPS 256-bit (TLS) encryption starting with the initial client login and covering all subsequent client-server interactions. Users using a public unprotected wireless network can be assured that all forms, comments, documents and other data are protected from interception.

Anti-Malware/Anti-virus software is active on all servers. The latest virus definitions and program enhancements are updated regularly to ensure that all newly created viruses are caught. All data is virus scanned before it is accepted into the Asite Platform.

Third Party external vulnerability scans and web application security assessments are carried out annually. As new vulnerabilities are detected and as fundamental changes to the application architecture take place; in house application assessments are carried out.

Additionally, in-house external vulnerability scans are carried out every 6 months.

Testing includes the following:

- Internal vulnerability scans
- External vulnerability scans
- Application assessments
- Asite Navigator Binary Application Assessments
- Asite Mobile App Assessments
- Firewall Ruleset Reviews

3.4 Accessibility

The platform has a number of secure authentication options for accessing accounts. The standard authentication for the platform is the use of an email and password. This includes a configurable password policy which allows the configuration of multiple parameters. The platform also allows Two-Factor Authentication, which creates a unique code that is emailed to the user at login which must be inputted into the login page to allow a successful login. Single Sign-On (SSO) can also be implemented on Asite accounts.

Full administrative rights can be provided to the System Administrator to control user access and user roles including creating new users and deactivating existing users. Privileges and permissions can also be determined by the administrator.

Data access is determined by a user's project role, each user working on a given project will be able to access data based on their assigned project roles only. Each project role can be assigned privileges for a defined set of functionalities. This ensures project security as it ensures only authorized users on a project has access their own data.

4 Support & Training

4.1 Support

Asite Support operates a helpdesk that is available 24 hours a day, 7 days a week. The support teams can respond to technical queries regarding the use of the platform. All correspondence is logged and dealt with by professional support operatives with defined processes for follow up and resolution. Asite Support operatives work to ensure all clients receive the support necessary to grow their business and prosper in the marketplace. The team endeavor to ensure an initial response time within one hour of the query being made.

The helpdesk can be contacted by the following:

By email at: support@asite.com

By phone on: 0845 130 5550

4.2 Training

The Asite training team are professional full-time training staff, focusing on the implementation of the project and the needs of the users. The team teaches common Asite workflows and how to use different Asite modules using realistic scenarios to enable users to flourish in the workspace.

Asite also offers Administration training to specific “Super Users” to allow them to audit, manage log functions, configure the system and manage files and folders. They will also be given a list of learning objectives by our training team as per the administrator training agenda. Memory aids are provided with training courses. User training will be provided for key stakeholders as assigned by the client.

The training agenda table below indicates the different courses Asite provides within its training plan, also included is the number of delegates recommended per session and the delivery type.

4.3 Implementation

At Asite our professional consultants have years of experience implementing the Asite platform successfully to a variety of clients spread across a number of sectors. The consultants have standard implementation methodology that has been tried and tested on many different projects with multiple clients all around the world.

All clients have dedicated Asite consultants who work with them throughout the project lifecycle. Consultants are in turn supported by the expertise of the Professional Services Manager who will assist the client in key decision making processes. Prior to the first meeting, your dedicated consultants will construct an initial proposed Delivery Plan document, providing a brief overview of the proposed project lifecycle on the platform as well as a potential timeline.

The first meeting is then held with the aim of capturing general requirements from the client. After the first meeting, the consultants construct a project configuration document. This is worked on together by both Asite and the client to map out any internal workflow processes and associated forms with a view of mirroring these procedures on the platform.

Asite then present the client with the Protocol document which details a structured, finalized outline of the project and the timeline. The client then reviews this document before approving it. As part of their work, as and when an update on progress for their implementation, configuration or development is required by the client, consultants can provide a comprehensive report detailing the stage of delivery.

Discussions from all meetings held between Asite and the client are documented and referred to when necessary. At the end of the project Asite will present the client with a project completion document, this will provide a detailed recap of the project, any required reports from the client, and details on data handover and archiving if required.

Throughout the project lifecycle the client will also be supported by a technical support team, comprising of more than half of Asite's workforce. The technical support team will be available to help with any issues that may arise during the project lifecycle on a 24/7 basis. During this time, chargeable review meetings are offered to the client, giving an opportunity to demonstrate any new platform functionalities, as well as reviewing current projects.