Cloud-Based Project Information Management from Aconex:

A Guide for IT Professionals
Adopting an Aconex SaaS Solution

It’s the job of CIOs and IT managers to ensure that their organizations adopt secure and effective software solutions. This is true whether the product under consideration is an on-premise solution or a cloud-based service.

Aconex Software-as-a-Service (SaaS) solutions enable organizations to effectively manage capital projects of all sizes in a collaborative environment. Aconex services have been deployed on more than 12,000 multiparty projects in heavy engineering industries such as construction, infrastructure, power, mining, and oil and gas.

The Aconex Online Collaboration Platform enables teams of contractors, subcontractors, consultants, and suppliers to share and manage project information through a single system, with built-in workflows for review, approval, tracking, reporting, and other essential processes. Aconex gives project managers control of all project activities, including a permanent audit trail of decisions and actions. Other Aconex solutions facilitate specific project processes – such as Aconex Field for field inspections and issues management, Aconex Smart Manuals for operation and maintenance manuals handover, and Aconex Interface Management for oil and gas projects. The result is project delivery with higher quality and lower risk – on schedule and within budget.

By deploying Aconex services rather than on-premise solutions, organizations in industries with specific application requirements eliminate the need to provision hardware, manage virtual machines, train operations staff, or provide other support needed for installed software.

What is Software-as-a-Service (SaaS) ?

SaaS solutions enable IT to outsource software, hardware, operations, and service.

- Nothing to install - users need only a web browser
- No infrastructure to provision - projects can start almost immediately
- No infrastructure or software to manage - all upgrades and expansion performed by Aconex
- Single version of software presented to all users
- Greater investment in underlying infrastructure
- Flexibility to support your business model
Making Life Easier for IT

Adopting a collaboration solution for project information management should make life easier for your IT team, which is not always the case. New software tends to demand staff involvement around installation, configuration and roll-out – as well as training and upgrade management. With limited resources and tightly stretched budgets, bringing a new application on board can create organizational stress.

SaaS solutions allow you to offer project teams an application built to their requirements or one that can be quickly adapted as those requirements change. Rather than customize and maintain a generic enterprise content management (ECM) solution, you can deliver services that specifically support industry-specific process control and information management functions. As a result, users show increased efficiency and productivity in days rather than months.

The larger its investment in on-premise software, the longer an organization is locked in, and users are potentially forced to live with a solution that loses its practical value over time. With a SaaS solution, there is greater flexibility and responsiveness. The vendor can make necessary changes and roll them out quickly without consuming valuable IT resources. Key to the Aconex value proposition is providing clients with the services they need to get the job done and evolving core technology to stay abreast of industry-specific business requirements.

This brief provides an overview of the IT benefits offered by Aconex solutions to businesses that manage capital projects.

SaaS = Peace of Mind

SaaS solutions relieve organizational stress, increasing productivity and reducing costs in the following ways:

- There is no hardware to provision or additional virtual machines to manage.
- There are no additional services to monitor.
- Vertical industry application experts assist in system set-up.
- Training of IT operations staff is not required.
- 24/7 helpdesk support and an extensive online help center are available to end users.
- The SaaS vendor handles all issues, eliminating late-night alerts for on-call staff.
- The vendor also provides data security in the cloud.
Eliminating Installation and Upgrades

Most Aconex services require only a standard web browser – eliminating the need to install software across desktops and production servers, install and manage back-up systems, develop and test disaster recovery plans, and renew warranties and software licenses. In addition, expensive upgrades become a thing of the past. Browser-based services enable you to redirect your IT team from software babysitting tasks to initiatives that support revenue generation and employee productivity.

Another benefit – managing software upgrades is no longer an IT burden. Aconex schedules upgrades outside of normal working hours to the extent possible, minimizing disruption to operations. We also provide online documentation prior to a release, which allows users to get up to speed on upgrades before they are rolled out.

Putting an End to Forklift Upgrades

Aconex helps you contain the cost of hosting software in-house by eliminating expensive and time-consuming ‘forklift upgrades’. Because our solution is cloud-based and browser-delivered, it’s no longer necessary to replace hardware that has reached the end of its useful life, which is typically required for on-premise software.
Secure Information Sharing

Whether an organization has adopted an on-premise or a cloud-based solution, security and ease of information sharing pose legitimate business and IT concerns. These concerns range from set-up and maintenance of FTP sites to the size of email attachments, confirmation of email delivery, document version control, and the efficiency of spreadsheets.

Keeping Internal Project Information Safe

With Aconex, your users can continue to use FTP sites and ECM solutions for internal project information. For multiparty projects, documents should reside on the Aconex platform, where they can be accessed outside any individual party’s firewall by other parties on the project team. Containing project data in one secure, neutral location eliminates the need for you to open external ports that allow other parties behind your firewall to access FTP sites or ECM software.

On the Aconex platform, project data is structured according to specific processes rather than unstructured as it would be in FTP sites. Also, information transferred from internal tools to the Aconex platform is securely managed both in transition and in the cloud. Our clients define the workflows and other processes which control the flow of information throughout the project.
Assurance for Users

Aconex services assure your users that they can:

- **Securely upload and download** information to and from a central information repository – eliminating the lack of security and structure inherent in using FTP sites or ECM solutions for multiparty collaboration.
- **Control information** shared internally and with other organizations on a project.
- **Confirm delivery** of project information at its intended destination.
- **Deliver files of any size** – including Building Information Modeling (BIM) files of tens or even hundreds of megabytes – without concern that attachments have been dropped by a mail server for being “too large.”
- **Be protected** by corporate password complexity and session timeout standards defined in security controls by their IT administrator.

In-House for Retention, Aconex for Collaboration

Users can transfer information securely between in-house tools and the Aconex platform.

1. Use Aconex as secure transport and collaboration tool during the project.
2. Web services keep in-house tools and Aconex in sync.
3. Remove all project data at end of project subject to fee and all participants’ agreement.
4. Clients can implement their own retention policies.

DOD 5015 Certified
Centralized Project Information

The central information repository provided by the Aconex platform is important for several reasons:

• It relieves you of the responsibility for maintaining the security of information housed in multiple hard drives and other storage devices across the organization.
• It relieves you of the responsibility for hosting and securing information that belongs to third-party organizations on the project – a legal risk as well as a headache in its own right.
• It provides users with a single point of access for all project documents and correspondence, making it much more secure and streamlined than email.
• It gives project managers visibility into who has transmitted and received project information, enabling them to deal with potential risks and overall team coordination more effectively.

Confirmed Mail Delivery

• With Aconex, your users can be confident that regardless of the size of any attachments, mail is delivered immediately to its intended recipients within the system.
• Project managers have visibility into what has been communicated and agreed to among other project participants, and powerful search tools to quickly find what they need when they need it.
• Your IT team no longer has to worry about backups and recovery of critical project information stored in PST files across many personal computers.
• All project correspondence for the organization is contained within the Aconex mail module.
Effective Data Management around Internet Connectivity

Aconex services are typically deployed in environments – construction sites or oil fields, for example – where internet access and mobile coverage are unreliable. Our mobile and field applications don’t require an internet or cellular network connection to capture information on site. When a user documents a problem on a mobile device, it’s securely uploaded and distributed when connectivity is restored. In addition, Aconex mobile applications can store critical documents on the device so they can be accessed when an internet connection isn’t available.

The bottom line – your users on a project can continue to be productive even when they lack connectivity.

Better Risk Management

Aconex solutions enable effective project risk management along three critical dimensions: security, reliability and performance. In each area, we put systems and controls in place to mitigate risk without increasing your workload.

Information Ownership

All participants in a project contribute information and – subject to proper security and access controls – share it when needed. All users see what has been sent to them on an equal basis. Each organization maintains ownership and control of its own content and what is shared.
Security

As organizations increasingly rely on mobility and multiparty collaboration to manage projects, security has become more critical. Many service providers make claims around information security management. We believe that the most reliable global standard today is ISO 27001.

As an ISO 27001-certified provider, Aconex has audited policies and procedures that govern such areas as:

- Information classification and handling
- Third-party access
- Incident management and communication
- Disposal of media
- Hiring, discipline and termination of staff
- Acceptable use of computer equipment

By adopting a SaaS solution for multiparty project information management, you can meet business objectives such as improving workflows and productivity while controlling costs. At the same time, it’s important to avoid introducing security risks outside of organizational firewalls that can lead to hacking, data loss and reputational damage. ISO 27001-certified policies and procedures help you protect against those risks.

Multitenancy and Control

The Aconex cloud-based platform serves multiple tenants, with impenetrable walls between bodies of information that belong to different enterprise clients. Within each client’s project, information owners control what is shared with other participants.

As noted earlier, Aconex clients’ project information is stored in a central repository, where your users can search and retrieve it while maintaining strict version control of critical documents. In addition, a private document register prevents unauthorized changes, tampering and deletion of documents, resulting in a complete audit trail for each project.

Geography

Aconex co-locates its instances in third-party cloud computing environments around the world to address performance, data sovereignty and redundancy requirements. You choose the regional site to host your project. All project information remains there and is securely replicated only at the disaster recovery site for that region.

We apply strict criteria in selecting infrastructure-as-a-service and data center vendors – ensuring that they are capable of supporting Aconex service-level requirements, including physical network performance and security. Our partners comply with Uptime Institute TIA 943 Tier III and are audited annually. Of equal importance, we meet our clients’ data sovereignty requirements, with environments in the U.S., Europe, the Middle East, Asia, and Australia.

Data Integrity - Aconex Security Model

Aconex provides multiple levels of security for SaaS-based, multiparty project collaboration.
Reliability

Given the complexity of networks, software and hardware, components will inevitably fail at some point. Adhering to service-level agreements is critical for any vendor. But beyond a basic agreement, what matters most are the systems in place to respond to incidents.

When Aconex services are deployed, you effectively gain another 24x7 on-call operations team which offloads service deployment, monitoring, maintenance, and repair.

Performance

Aconex solutions are built on an infrastructure that enables the concurrent management of thousands of projects. Content delivery, enhanced storage and support for web services are all key to the quality of the user experience, which in turn leads to widespread adoption and increased productivity.

Content Delivery

Aconex services leverage the Akamai content delivery network. This secure web acceleration platform is standard on all Aconex projects, speeding information download and exchange in a multiparty collaboration environment. Akamai technology helps Aconex seamlessly serve projects in which participating organizations are located on different continents.

Content Storage

Aconex has enhanced its services with Local Copy, an optional standalone software solution that provides a locally hosted copy of project information, which is continually updated over the life of a project.

Local Copy enables users to:

- Store a copy of all project information behind their own firewall
- Access information at all times, even when the internet is unavailable
- Use the same, familiar Aconex interface and search capabilities to locate and manage data
- Retrieve updated project information on a schedule that meets their needs

Web Services

Aconex allows users to push or pull information into the platform from back-end systems such as ERP or project scheduling applications. This, along with our ability to archive information and create local copies, facilitates information access and control.

Global Hosting – Secure Data Centers

Aconex data centers deliver optimized service to all regions – with full data back-up.
The Right Choice for Multiparty Projects

Adopting an industry-specific project information management solution shouldn’t complicate your IT operations. Ideally, the new solution should relieve you of deployment and maintenance issues, as well as the need to respond to ad hoc requests or divert resources to the laborious hand-coding of functionality.

Key to making the right choice of a SaaS solution is the vendor’s field experience. For more than a decade, Aconex has evolved its approach to collaborative communications and information processing in capital projects of all sizes. The Aconex platform brings cross-organizational functionality and accountability to the domain of project information management. As such, it aligns strongly with your IT priorities around information ownership, data security and efficiency.

For more information about how Aconex services can ease the burden of deploying and maintaining a project information management solution – while providing your project teams with the tools they need to be successful – please contact us.

More details on the Aconex security model, visit aconex.com/Security
About Aconex

Aconex provides the #1 cloud solution to manage information and processes for the world’s largest construction and engineering projects. Aconex gives owners and contractors project-wide visibility and control between the many different organizations collaborating across their projects.

With more than 500,000 users and over US$1 trillion of project value delivered in 70 countries, Aconex is the industry’s most widely adopted and trusted platform. The company’s global customer base includes nine of the top ten engineering, procurement and construction (EPC/EPCM) firms, 23 of the 25 largest global design firms, and nearly all Fortune 500 construction and engineering companies.

Founded in 2000, Aconex has 40 offices throughout the world, including headquarters in Melbourne, Australia and San Francisco, California.

Our clients have recognized that the Aconex solution is rich in features that support industry processes and that it meets or exceeds their internal security and data management standards. This is backed by unmatched client service that ultimately drives user adoption, maximizes return, mitigates risk and promotes project success.

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