



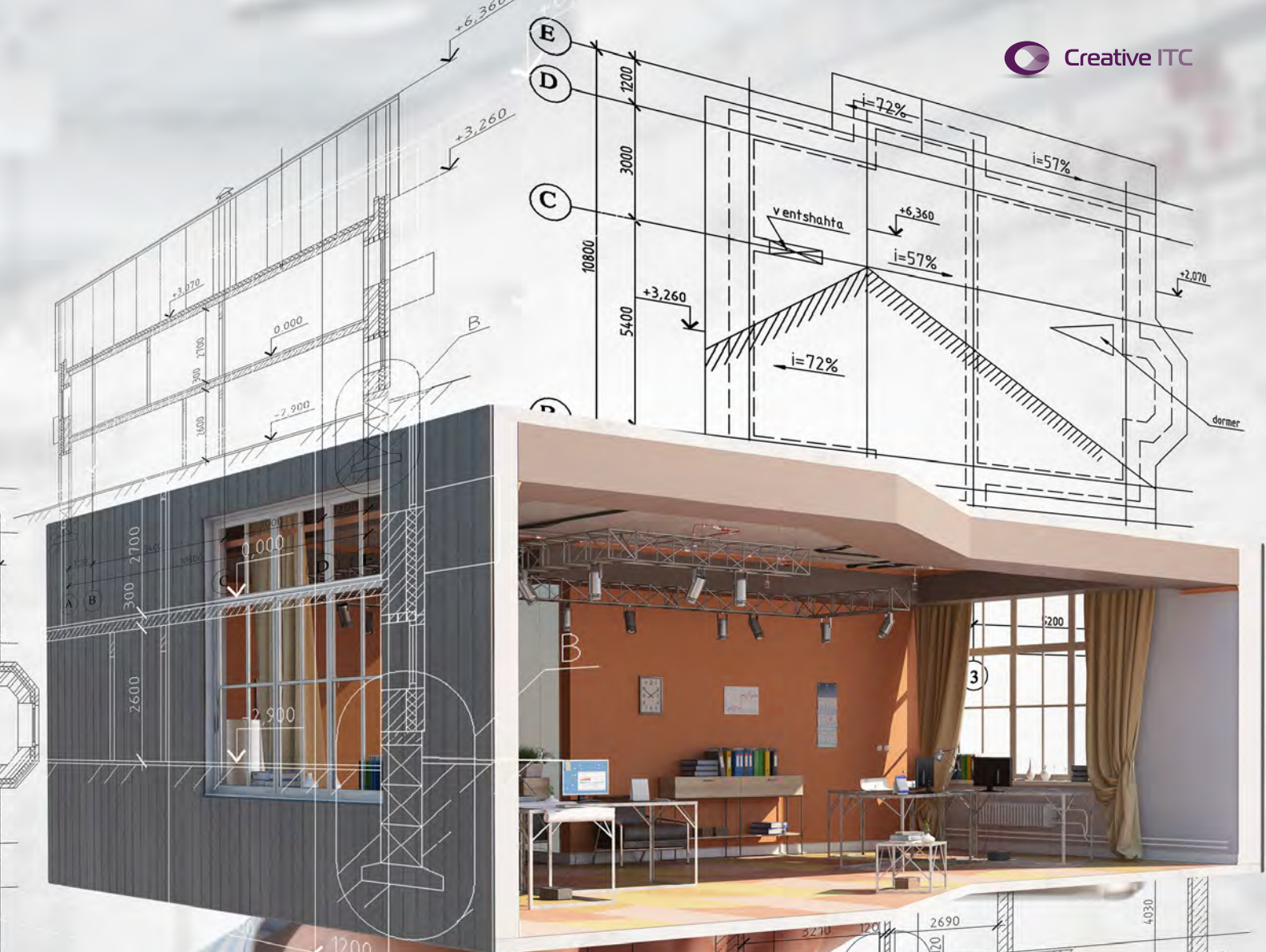
MAKING AEC JOINT VENTURES MORE SUCCESSFUL

How to solve the age-old problem
of CAD data collaboration using
a common data environment



Creative ITC





EXECUTIVE SUMMARY

Putting together winning project proposals with partner businesses is an artform. Nowhere is this more apparent than in the architecture, engineering & construction (AEC) space. Yet, the harsh reality is that many AEC companies are still trying to improve how they share data, resources and expertise internally within their own organisations.

So, when they collaborate externally on a joint venture – with each party using different IT processes, standards and platforms – those challenges are multiplied several times over. This paper offers a practical how-to guide for removing those barriers and achieving greater joint venture success.

ALL TOO COMMON CHALLENGE

Very few AEC companies have all the capabilities needed to deliver a major construction project on their own. So, joining forces is simply business as usual. And when they enter into a joint venture they frequently encounter the same issue: the architects, engineers, project managers and construction professionals from the different companies struggle to effectively control data and exchange large files.

It's an age-old problem that hinders and, in extreme cases, even derails bid management. That makes it harder for the joint venture to process and control tender documentation and, ultimately, secure the project in the first place.

Those problems perpetuate further still once the bid's been won. Costs quickly rack-up on travel. Having to physically co-locate joint venture teams within the same building is a common quick fix to overcome IT incompatibilities.

As the project progresses the transfer of data among globally dispersed experts takes days.

Huge amounts of time and money are wasted moving large files between companies and on

emails and interminable uploads and downloads.

Oblivious to the latest changes, remote staff and contractors work from incorrect versions of CAD drawings, specifications, bills of materials, job schedules, project plans and other critical information. Causing unnecessary re-work, slowing decision-making and pushing lead times out by weeks or much more.

That leaves the joint venture playing catch-up for the rest of the project. Worst still, for the client it can seem like the partners are operating in silos and are a million miles away from the seamless consortium they were promised



GROWING ADOPTION OF COMMON DATA ENVIRONMENTS

To help address these issues the AEC industry is actively adopting a Common Data Environment (CDE) as a single source of information to collect, manage and disseminate documentation, graphical models and non-graphical data – whether created in a Building Information Modeling (BIM) or in a conventional format.

While a CDE undoubtedly facilitates collaboration between project teams and helps avoid duplication and mistakes, it only goes so far. Each AEC company

participating in the joint venture still needs an effective strategy for accessing the CDE.

Virtual desktop infrastructure (VDI) technology provides a proven, ready-made solution. It's been around for a few years, enabling employees to get more done: onsite, in the office, on the move, at home. So, the question for AEC companies is more around how they deploy VDI and choose to pay for the underlying networking, compute and storage components.

EMERGENCE OF VDI-AS-A-SERVICE

Increasingly, the preferred way for many AEC companies to optimise their CDE has been to opt for a fully managed, hosted VDI service. Not least because outsourcing saves them the time and money of building and managing their own on-premise VDI platform.

Consuming VDI as a cloud service can also reduce licensing costs and eliminate the need for costly PC and laptop refreshes. Data is hosted from one central location with centralised backup and disaster recovery, improving security and reducing the risk of data loss.

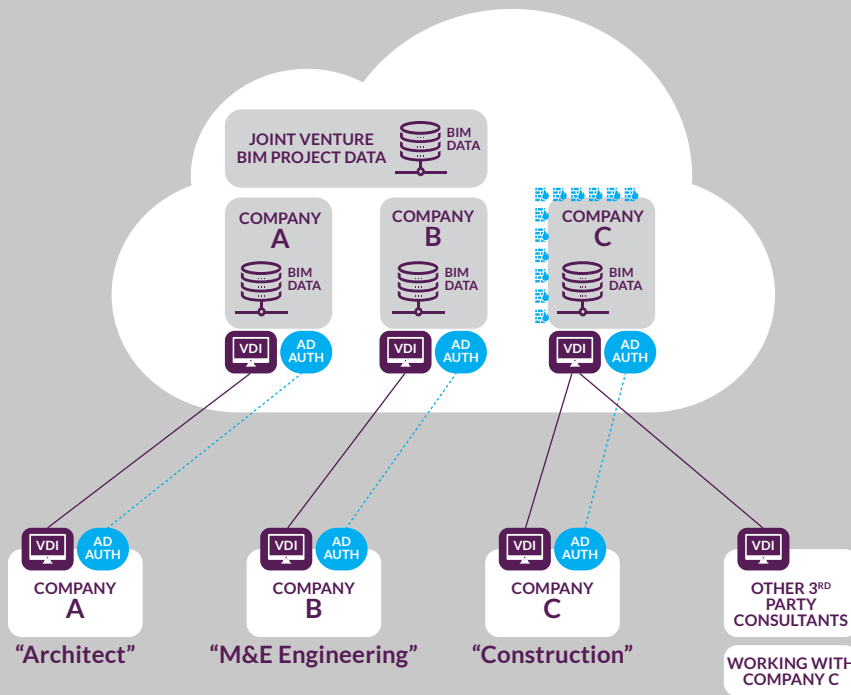


CASE STUDY

Royal BAM Group, a Creative customer using BIM VDI Cloud, is a prime example. The solution runs as a fully managed private cloud that empowers diverse,

global project teams with fast, reliable access to the construction group's CDE (see Figure 1).

Figure 1 - BIM VDI Cloud connecting all the different entities involved in the joint venture



Now, when Royal BAM Group enters a joint venture, instead of losing time waiting for new IT infrastructure and servers to arrive it's able to mobilise the project quickly by simply extending the CDE to partner companies. Data is stored in one location, eliminating time spent on version control and rework.

Joint venture staff, contractors and subject matter experts around the world can work simultaneously on high-end building information – from any location

with an internet connection – pooling their knowledge and modelling CAD files collaboratively and in real time.

BIM VDI Cloud is fine-tuned for optimal performance, so applications run faster. And, because there's no need to move large files back and forth across the network, completion times for tasks and projects shrink dramatically. That reduces the risk of delays and financial penalties, leading to improved client service.

As part of our long term strategy for the Group, we recognised we needed platform-as-a-service to give us more agility and scale. We evaluated a number of solutions including the Microsoft Azure cloud and the Creative BIM VDI cloud. While both solutions worked, Creative VDI cloud gave us far greater cost predictability, flexibility on delivery and confidence in our changing requirements.

Steven Capper, CIO, Royal BAM Group

BENEFITS

Developing an integrated CDE and VDI-as-a-Service strategy provides AEC joint ventures with several competitive advantages:



GREATER MOBILITY

Unchain people from their desks with a solution that's purpose-designed for graphics-heavy programmes like CAD, Revit, Photoshop and InDesign.



LESS DOWNTIME AND DISRUPTION

Get projects up-and-running in the shortest time by allowing staff to drive their desktops remotely from devices like tablets or home PCs.



BETTER PROTECTION

Put data and apps into the cloud to improve security and reduce the risk of data loss. Plus simplify everyday tasks, like maintaining version control for plans and designs.



HIGHER PRODUCTIVITY

Ensure people suffer less downtime and can work remotely without returning to the office to share large files like plans and designs. And always access right versions.



FASTER SETUP TIMES

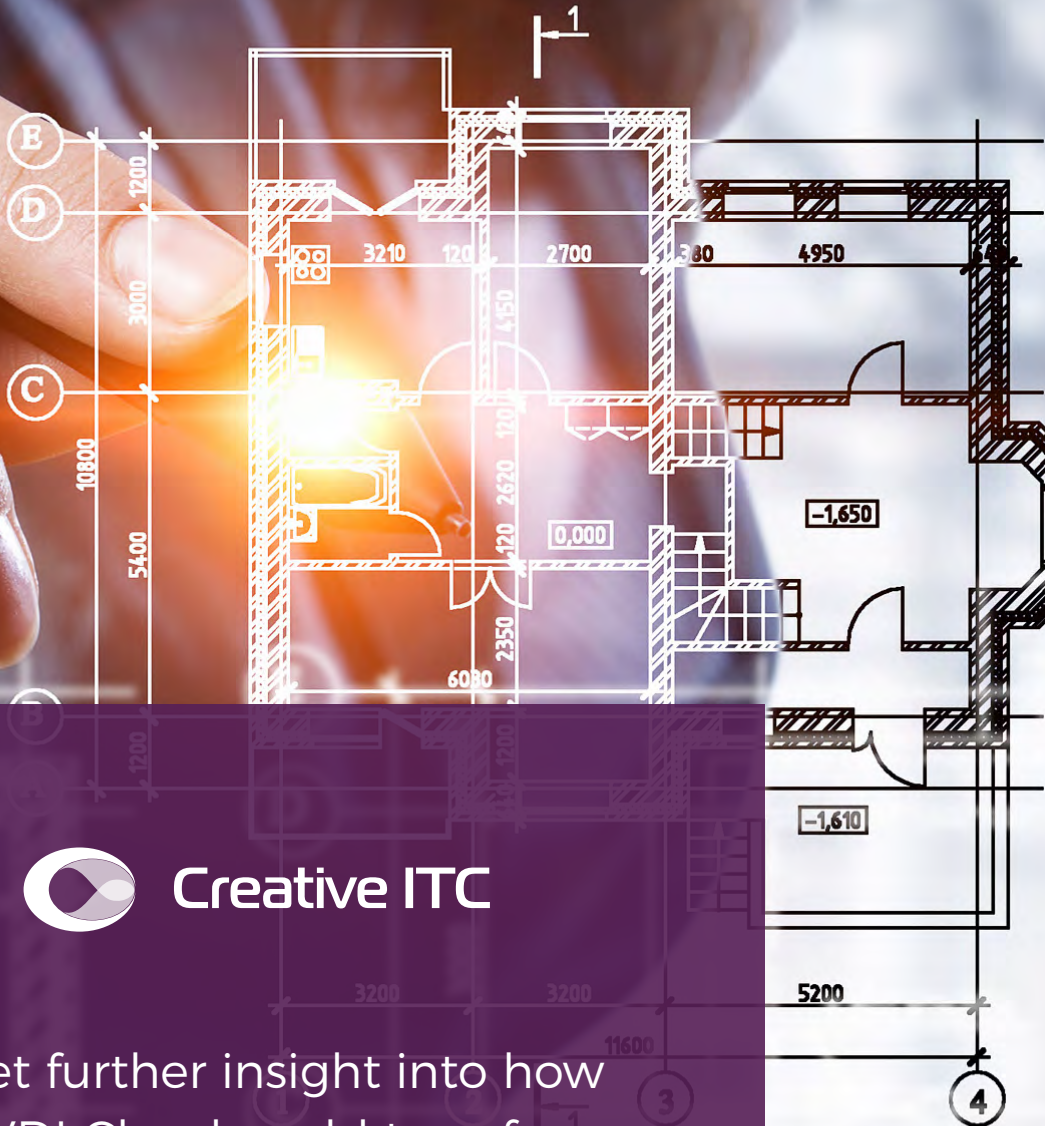
No more provisioning delays or Capex. Connect joint venture partners and users in different offices simply by adding licences as needed.



TIGHTER COST CONTROL

Save money on PC and laptop refreshes, software licences and IT support contracts. When the joint venture ends, just switch off the machines.

Plan first floor



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To get further insight into how
BIM VDI Cloud could transform
your common data environment
for greater joint venture success,
please contact

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