




BCDE Common Data Environment

Lot 2 – Cloud Software Pricing

Prepared for UK Government G-Cloud 13



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EXECUTIVE SUMMARY

This document provides pricing details for the software subscription of Bentley's BCDE Common Data Environment with optional modules and enhancements.

Given BCDE's extensive configuration capability, availability of bundled modules and variations in requirements that could exist between individual customers, the pricing in this document is provided as a guide for potential customers.

Bentley would be delighted to undertake engagements with individual customers and to provide tailored presentations, proposals and pricing that will be required.



1 LICENCE MODEL

BCDE is licensed on a per user basis (to ensure that all actions are recorded and auditable against a named individual). A user only requires a single license to work on as many projects as necessary. When a user leaves, the license can be “retired” and will be available for re-use.

1.1 Core CDE

The core BCDE Projects and BCDE Program licence includes schemas, templates and workflows configured to meet project information management standards and is informed by ISO19650 – Part2. The core BCDE Portfolio licence includes schemas, templates and workflows configured to support asset information management as well as project information management standards and is informed by the ISO19650 information standard.

Every license edition includes the 2D and 3D browser-based viewers.

1.2 BCDE Modules

Along with the core BCDE Product is included a series of modules that operate alongside the core product and are available with the different license tiers. (Please see License Tier Functional Overview in Section 2.1 for which modules are include with the different BCDE tiers).

1.2.1 BCDE Sync

A unique solution that enables separate BCDE servers to be connected to support the transfer and validation of information (contract) deliverables between parties, whilst allowing each party to maintain a full and thorough audit trail such as a contractor project information BCDE solution integrated and transmitting information deliverables to a client project and/or asset information BCDE solution.

1.2.2 BCDE Workflow (available with BC7.5+)

A visual workflow engine based on the BPMN 2.0 standard (Business Process Modeling Notation), enabling users to design and initiate automated workflows in BCDE Spaces/Projects to controlling the document flow with minimal user interaction required. (Pre-built templates for workflow are available with BCDE Project. Workflow designer only available in BCDE Program and Portfolio).

1.2.3 GeoNavigate (formally GeoLink)

GeoNavigate allows WMS/WMTS, KML, SHP and other geospatial data sources to be federated and presented alongside User’s geolocated projects and assets on a map for ease of reference and navigation. GeoNavigate enables the presentation of project and asset centric documents and other CDE published information through an intuitive map for access via PC, tablet or smartphone. (Not available with BCDE Project or BCDE Program. GeoNavigate KML is self-serve. Other GeoNavigate Layer Types will require additional services).



1.3 Optional Server Enhancements

Below is a list of additional server enhancements relating to enhanced security and additional storage requirements for a server.

1.3.1 DDOS Protection¹

Cloudflare - Unmetered DDoS mitigation to maintain performance and availability

Denial of Service attacks continue to grow in sophistication and force: more distributed, greater volumes of traffic, and encroaching on the application layer. A successful attack increases unnecessary costs on your infrastructure and IT/security staff. More importantly, it hurts your revenue, customer satisfaction, and brand

1.3.2 Encryption²

Hytrust Virtual Machine Encryption (BCDE Database/application server) + Encryption at rest (file store)

This is based on BCDE's recommended number of VM's per server instance based on user population. If specific encryption requirements are needed across a wider number of deployed VM's the cost will vary accordingly.

1.3.3 Additional Storage

If the User requires additional storage this can be added in 250GB increments above the allocated storage allowance. Any increase above the allocated allowance will incur an additional fee.

¹ Subject to technical validation of security environment requirements.

² Please consult BCDE technical team for a quotation.

2 LICENSE EDITIONS

BCDE is available in 3 license editions as follows:

Project – A single project CDE delivering turnkey capability for BIM (BS EN ISO 19650-2) compliant working.

Program – A multi-project CDE delivering turnkey capability for BIM (BS EN ISO 19650-2) and non-BIM (folder-based document management) project working

Portfolio – A multi-project, programme (PIM) and asset information (AIM) CDE delivering organization specific configuration, customization/development, and systems integration capability.

2.1 License Tier Functional Overview

	Project	Program	Portfolio
SSO Support ³ - SSO	✓	✓	✓
ISO 19650 Template Project CDE - COLLABORATE	✓	✓	✓
Mark-up/View 2D Drawings – VIEW AND MARK-UP	✓	✓	✓
View federated 3D Models ⁴ - 3D MODEL VIEWING	✓	✓	✓
Report on Project Tasks and Performance – DASHBOARDS & INSIGHTS	✓	✓	✓
Managed Schedules of Document Deliverables – INFORMATION DELIVERY PLANNING	✓	✓	✓
Submit and transmit for ISO 19650 Workflows - WORKFLOW	✓	✓	✓
Easy Publish CDE files from Source (BCDE, PW Future) to Destination - SYNC	✓	✓	✓
Administer Unlimited Projects/Programs/other PIM Workflows – MANAGE PIM		✓	✓
Configure Portlets, Layouts and Views – MANAGE UX			✓
Link Project/Portfolio Outlines to Projects/Portfolio – GEO NAVIGATE			✓
Federate External Content into Portlets - FEDERATE			✓
Programmatic (REST API) Control of CDE operations - API			✓
Administer (Unlimited) Portfolio locations management – MANAGE AIM			✓
Manage and Report on Delivery Plans – ADVANCED DELIVERY PLANNING			✓

The core BCDE system is a highly configurable, flexible cloud-based common data environment (CDE).

³ Federated Single Sign On through integration with Bentley IMS

⁴ Additional Model and file Viewing capability is planned through integration with Bentley iTwin Services. See Bentley iTwin Service Description on separate G-Cloud 13 listing. Additional costs may be incurred for this capability when available, and if required.

**BCDE system offers:**

- An **HTML5 interface** providing a simple, clean, and modern user experience for all users. The zero-install interface is touch-enabled and suitable for use across desktop, laptop, tablet, and smart phone devices, supporting mobile working and dynamically scaling to fit the screen.
- **Simple, intuitive user interfaces and workflows** to support the information access and sharing needs of infrequent users.
- **Powerful search and audit capabilities** going well beyond standard logging capabilities.
- **SSO Integration** with Bentley IMS (Identity Management System).
- **Collaborative tools** to work on documents with internal or external parties using out of the box ISO19650 templates.
- **Data and Model Processing** – Inbuilt viewers to support document and model⁴ viewing in the web browser with no software install required.
- **Dashboards and Insights** – Dashboards to monitor tasks, workflows, and any configured contract communications by their completion status.
- **Information Delivery Planning** – Pre-plan the delivery of document within BCDE with the use of placeholders.
- **Workflows** – Inbuilt e.g., transmittal/submittal workflows with in-system discussion threads – all archived, auditable, and searchable.
- **Sync** – To allow controlled and managed transfer of files and metadata between different BCDE Server Instances⁵.
- **Manage UX** – With control over portlets, icons, viewer, and layout the users can configure the look, feel and operation of user users consume data to suit Business and operation requirements.
- **GeoNavigate** – Visualize assets and projects on a map. Allow users to geographically locate a project based upon their knowledge of where it is.
- **Federate** – Bring data externally hosted into BCDE with use of external content portlets to display a contextual, federated view of integrated project and asset information.
- **API** – To support Integration with corporate systems such as ERP and CRM to give applications access to e.g., documents held in BCDE through a documented REST API.

⁵ Additional Sync connector to allow transfer of files and Metadata from ProjectWise DI to BCDE Servers coming soon in BCDE 7.5+





2.2 BCDE Project Overview

The BCDE Project CDE will help Users achieve BIM Framework compliance fast on a single project, remove the organization's reliance on network folders, email and file sharing sites and adopt a turnkey solution that makes effective project collaboration easy, safe, and secure.

Across every stage of the project lifecycle, BCDE Projects is a powerful solution that will ensure the entire project team is connected. BCDE Projects will help Users prepare BIM Execution Plans (BEPs), guarantee technical data is shared securely in line with BS EN ISO 19650-2 and more. The right CDE is the first step to greater efficiency, increased productivity, and BIM compliance.

The key benefits of BCDE Projects are:

- A CDE that supports BIM Framework project delivery out-of-the-box
- An accessible, powerful and secure cloud solution for project collaboration
- A trusted archive with a complete audit trail of all project data
- Less administration, greater security and faster compliance
- Advice, guidance and support from BIM experts

BCDE Project is ideal for:

- Providing a single source for project information, for individual or joint venture projects
- Growing companies looking to begin their digital transformation
- Companies aiming for BIM accreditation in order to bid for public funded projects

2.3 BCDE Program Overview

There are many challenges involved in managing complex construction projects. Managing disparate teams across different sites, ensuring project information is compliant with industry standards and ensuring handovers are both comprehensive and accurate; they all require efficient and effective data management.

BCDE Program will deliver a templated BIM Level 2 environment to enable better and more compliant working, fast. It works across multiple projects to drive consistency into User's project delivery processes, thus helping User to manage the vast amounts of information involved in a construction project and work more effectively and efficiently.

BCDE Program offers all the benefits of BCDE Project, as well as:

- Standardise digital delivery approaches across programmes and projects
- Optimise processes and deliver executive insights across projects
- Access project information via a user-friendly map interface
- Connecting teams and standardising workflows with User's extended supply chain
- Replacing network shares, email and unsecure file share sites with an intuitive, scalable and secure CDE



BCDE Program is ideal for:

- Contractors and consultants looking to improve project delivery across programmes of work or multiple organisations
- Clients and asset owners wanting to digitise estates, capture supplier-delivered project information to defined information management standards and maintain this in a secure, navigable archive for the full asset lifecycle.

2.4 BCDE Portfolio Overview

Users may have a clear vision and strategy for their digital journey and be looking for the right technology partner to translate this vision into a tailored solution for your organizational needs.

BCDE Portfolio is the premium license edition that unlocks the full project and asset information capabilities of our platform enabling users to develop a competitive edge in your programme, project and asset delivery. It is the single source of truth for your teams to securely access trusted information, to make more informed decisions about your projects and assets. Through configuration and systems integration, we help you to optimize key information flows, to drive more effective and profitable working practices.

BCDE Portfolio is for organizations that require:

- Total project and asset information management control.
- Insights on their projects and assets to help drive investment decisions.
- Improved compliance by driving use of industry and organisational standards.
- Reduced costs and reduced risks of client and supply chain information exchange.
- Extensive API for 3rd Party integrations.
- Locate and connect User's assets and projects to their surrounding environment.

BCDE Portfolio is ideal for:

- Ambitious organisations who understand that configuration and integration is a key differentiator to maintain their competitive edge.
- Organisations with a strategic vision for digital transformation and are searching for the right partner to help them achieve it.



3 PRICED EXAMPLES

BCDE is the leading CDE for Clients wanting to digitize estates, capturing supplier-delivered project information and maintaining this throughout the asset lifecycle. User will benefit from a dedicated CDE, deployed in a secure Bentley cloud hosted environment, helping Government departments, agencies, and universities to procure asset information in accordance with UK industry standards.

The price for a core CDE system, licensed on a subscription basis and invoiced in advance, includes:

- Product licenses for BCDE and additional supporting modules where illustrated as included in the pricing matrix below.
- Support and maintenance service available 9:00 am to 5:30 pm UK Time zone, Monday to Friday excluding English bank holidays.
- Access to the document and model viewing⁴ and mark-up tools.
- Document Content searching.
- RFI, Transmittals and support for other form-based workflows.
- Fully Managed Hosting service including:
 - Proactive monitoring and management of hosted service.
 - Installation of operating system and utility software upgrades and patches.
 - SSL encryption (assuming a URL in the format “xxxxx.withbc.com”).
 - Daily data backup and mirror of data to secondary hosting site, retained for 15 days.

3.1 Pricing Notes

3.1.1 Specific notes relating to module purchases

^(A) Additional Handler and Project bundle charges may apply.

^(B) Additional mapping /data services charges may apply.

^(C) API allows Bentley consultants to develop integrations and customisations to User’s BCDE instance.

^(D) API Included on BCDE Portfolio available upon request, Bentley reserves the right to remove API access if the use is in direct competition with an existing Bentley product.

3.1.2 General notes

- License are sold on a named user basis.
- Licenses are sold in bands and license costs are calculated on a cumulative basis (so a 35-user price is calculated as 25 user band total plus 10 x (26 to 50 user license cost)).



- If a User increases their total license count, the cost of licensed modules will increase pro-rata as well.
- Upgrades to licences numbers (minimum additional quantity 25) can be made at any time but additional purchases are calculated/priced from the 0-25 user band.
- Additional discounts are available for fees paid in advance of a three-year and five-year term. Please enquire for further details.
- Each BCDE solution is delivered as its own cloud hosted ring-fenced private instance with a recommended storage allowance.
- Above pricing includes storage of data/documents to an 'Official' classification.
- The core and optional modules are described in in detail in BCDE CDE Lot2 – Cloud Software – Services Description.
- Volume discounts apply to a single purchase.



3.2 BCDE Project Pricing

Table 1: BCDE Projects Pricing

Users (top band number)	500	1,000	2,500	5,000	7,500	10,000
User Band	1 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 to 7500	7500+
Unit cost per Annum per User	£179.00	£54.00	£45.00	£36.00	£27.00	£18.00
User (Top band number) per Annum	£89,500.00	£27,000.00	£67,500.00	£90,000.00	£67,500.00	£45,000.00
Cumulative Band Cost Per Annum	£89,500.00	£116,500.00	£184,000.00	£274,000.00	£341,500.00	£386,500.00
Included Storage (GB)	750	1,500	3,750	7,500	11,250	15,000
Advanced Capabilities						
BCDE Sync (A)	Included					
BCDE Workflow	Included – Standard Bentley Workflow Templates only					
ProcessPlan (Advance Delivery Planning)	Not Included					
GeoNavigate (B)	Not Included					
Application Programme Interface (API)(C)(D)	Not Included					
Enhancements						
DDOS Protection	£2,392.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00



Encryption	£2,990.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00
Additional Storage Increment Cost						
250GB	£375.00					
500GB	£749.00					
1TB	£1,496.00					



3.3 BCDE Program Pricing

Table 2: BCDE Program Pricing

Users (top band number)	500	1,000	2,500	5,000	7,500	10,000
User Band	1 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 to 7500	7500+
Unit cost per Annum per User	£262.00	£79.00	£66.00	£52.00	£39.00	£26.00
User (Top band number) per Annum	£131,000.00	£39,500.00	£99,000.00	£130,000.00	£97,500.00	£65,000.00
Cumulative Band Cost Per Annum	£131,000.00	£170,500.00	£269,500.00	£399,500.00	£497,000.00	£562,000.00
Included Storage (GB)	750	1,500	3,750	7,500	11,250	15,000
Advanced Capabilities						
BCDE Sync (A)	Included					
BCDE Workflow	Included – Standard template at initial setup					
ProcessPlan (Advance Delivery Planning)	Not Included					
GeoNavigate (B)	Not Included					
Application Programme Interface (API)(C)(D)	Not Included					
Enhancements						
DDOS Protection	£2,392.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00



Encryption	£2,990.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00
Additional Storage Increment Cost						
250GB	£375.00					
500GB	£749.00					
1TB	£1,496.00					



3.4 BCDE Portfolio Pricing

Table 3: BCDE Portfolio Pricing

Users (top band number)	500	1,000	2,500	5,000	7,500	10,000
User Band	1 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 to 7500	7500+
Unit cost per Annum per User	£315.00	£94.00	£79.00	£63.00	£47.00	£31.00
User (Top band number) per Annum	£157,500.00	£47,000.00	£118,500.00	£157,500.00	£117,500.00	£77,500.00
Cumulative Band Cost Per Annum	£157,500.00	£204,500.00	£323,000.00	£480,500.00	£598,000.00	£675,500.00
Included Storage (GB)	750	1,500	3,750	7,500	11,250	15,000
Advanced Capabilities						
BCDE Sync (A)	Included					
BCDE Workflow	Included – Standard template at initial setup					
ProcessPlan (Advance Delivery Planning)	Included – Additional services will be required at extra cost					
GeoNavigate (B)	Included – Additional services will be required at extra cost					
Application Programme Interface (API)(C)(D)	Included – Self-service documentation provided					
Enhancements						
DDOS Protection	£2,392.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00	£3,588.00



Encryption	£2,990.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00	£5,980.00
Additional Storage Increment Cost						
250GB	£375.00					
500GB	£749.00					
1TB	£1,496.00					



About Bentley Systems

Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world's infrastructure – sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organisations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities. Our offerings include MicroStation-based applications for modeling and simulation, ProjectWise for project delivery, AssetWise for asset and network performance, Seequent's leading geoprofessional software portfolio, and the iTwin platform for infrastructure digital twins. Bentley Systems employs more than 4,500 colleagues and generates annual revenues of approximately \$1 billion in 186 countries.

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