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Redstack is a leading provider of Virtual Design and Construction (VDC), Building Information Management (BIM), Construction Project Management and Enterprise Information Management (EIM) solutions. Redstack leverages in-depth technology, knowledge and a clear understanding of business requirements to deliver significant value. Redstack has a global network of construction project management, design and engineering resources focused on developing tailored business solutions for a broad range of global clients.

Redstack has maintained a local presence in both Singapore and Australia for over 20 years, expanding throughout Asia and establishing itself as a services and consultancy company with offices throughout the Asia Pacific region. Redstack now has offices located throughout Singapore, Australia, Malaysia, Taiwan, Philippines, Japan and Qatar and have completed successful BIM projects throughout the Asia Pacific and Middle Eastern regions.

Redstack has been certified with the highly acclaimed Japan ISO27001 and Singapore BizSafe Level 3 certification, which allows us to manage sensitive security data in the BIM and FM process.
BIM SOLUTIONS

BIM IMPLEMENTATION

BIM + FM

CAD to BIM

BIM + VR

BIM + SCAN

BIM + SAFETY & SECURITY

BIM PLATFORM INTELLIGENCE

2D | 3D | 4D | 5D | 6D | 7D

Your current system
Design visualisation
Design evaluation
Clash detection
Project management
Site logistics
Construction sequence
Cost analysis
Quantity take-off
Clash detection
Green design
Sustainability
Energy analysis
Managing buildings
Operations maintenance
STAFF PROFILES

Japri Manning
Group CEO & Chairman

Masaru Aburatani
Senior Executive VP

Phillip Amato
Managing Director

Jack DeCandia
Global BIM Director

Tadahiro Chiba
Executive Director

Shirley Toh Chiang Ling
Group GM / Director

Kim Kao
Vice President

Jasmine Lim An Li
Finance Director

Yves Laurent Isidro
Operations Director
We offer a broad range of BIM services, utilising BIM methodology for collaboration on design and construction projects. Successful application of the right BIM processes can deliver time and cost savings, not only in the design phase but throughout construction and into Facilities Management. When BIM is implemented correctly, it will deliver ongoing benefits for the life of the building. See our range of BIM services below:

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**BIM is not just about 3D software. It consists of 3D modelling, documentation, coordination and collaboration. Successful BIM implementation integrates a range of skills and disciplines. In addition to the 3D model, we also create BIM Execution Plans (BEP), Modelling Guidelines (MGL) and BIM QA/QC Plans (BQP).**

_Suchet Babaria, BIM Manager, Redstack Qatar_
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**INTEGRATE YOUR DESIGN PROCESSES WITH TECHNOLOGY**

Implementation planning is essential to maximise return on your technology investment. Redstack's implementation services provide everything you need to plan, deploy, install, customise and integrate technology into your organisation.

Redstack can also deliver ongoing training and support, managing the rollout of new technologies and processes. Redstack experts have a proven methodology to analyse your processes and leverage the technology available to determine the best implementation plans for your company. By partnering together we can create a roadmap for ongoing, long term success.

**STRUCTURED TAKE AIM METHODOLOGY**

Redstack's Structured Take AIM Methodology optimises technology, manpower and resources to deliver highly scalable solutions for your engineering and design processes.

A Gap Analysis identifies the difference between your organisational needs and current technical capabilities. Solution Specification defines the system, software, and services required to close the gap, and implementation provides the resources to install and customise new solution, train users, and support your organisation through the critical rollout period and beyond.
Let Redstack help you with hardware, software configuration, profiles and data security in your working environment.

Max Bodnar, Technical Specialist, Redstack Australia
LUSAIL CITY COMMERCIAL BOULEVARD - CP07-C-1B

LOCATION: Doha, Qatar

HEAD CONTRACTOR / CONSULTANT: Hochtief ViCon and Worley Parsons

PROJECT START: 2015 - Ongoing

CLIENT: Lusail Real Estate Company (LREDC)

CONTRACTOR: WCT - Al Ali (JV)

Construction of Internal Roads, Utilities, and Underground Car-Parks

Redstack Global were engaged as BIM Manager for WCT – Al Ali JV to create, manage and co-ordinate BIM models, for Package CP07-C-1B. Our scope included deployment of our BIM Team to create LOD 300, LOD 400 and LOD 500 including As-built. This process included monthly 3D laser scanning for BIM audit and construction progress. Lusail City will become the world’s first maintenance free Smart City in the world.

UNIVERSITY OF READING

LOCATION: Kuala Lumpur, Malaysia

CONTRACTOR: IJM Constructions

PROJECT START: 2014 - Ongoing

CLIENT: University of Reading

3D Laser Scan, LOD 300 - As-built

Redstack Global were appointed as BIM Manager / Project Manager by IJM Constructions to create BIM models LOD 300 As-built. The project also involved 3D laser scanning of existing buildings and assets to create BIM models for integration into Facilities Management Systems.
3D Laser Scan of 28 building on campus, LOD 500 to Facilities Management.
The NTU engaged Redstack as BIM + FM Manager to create the BIM for 28 buildings on campus and develop the models so that they could be integrated into their Facilities & Asset Management Systems. The process also included substantial conversion of existing 2D drawings to 3D models and asset tagging.

IJM Constructions engaged Redstack Global as BIM Manager for the National Cancer Institute project. The work scope included development and coordination of BIM models to LOD 500 for Architectural, Structural and MEP services.
HANEDA AIRPORT TERMINAL EXPANSION

LOCATION: Tokyo, Japan
PROJECT START: 2016 - Ongoing
CLIENT: Tokyo International Air Terminal Corp
ARCHITECT: Caesar Pelli

Redstack were appointed as BIM Manager to create and develop BIM models of LOD 500 to As-built models for Architectural and exposed MEP structures.

SINGAPORE MASS RAPID TRANSIT PROJECT (SMRT) 3

LOCATION: Singapore
PROJECT START: 2013 - Ongoing

Redstack Global were appointed to complete 3D Laser scans and create LOD 300 BIM models for new compliance standards. BIM integration into Facilities Management with Virtual Reality for maintenance, safety training and disaster evacuation training and simulation purposes. Flood analysis and traffic flow during peak - off peak periods. The creation of a 3D model was essential to simulate various situations to the authority.
We provide High-Definition Surveying (HDS) Scanning Technology which captures accurate spatial information points and creates a 3D point cloud database of the scanned area. The point cloud database can be directly interfaced with various CAD platforms such as Autodesk Revit to allow clash verification between as-built scanned data and design intent.

**BENEFITS OF USING 3D LASER SCAN TO BIM**

- Recreate blueprints, 2D drawings or 3D models with actual site data for existing building, property, facilities & assets.
- Capture unique architectural design elements with a high level of detail.
- Preserve the original structure of the building site with links to Geographical Information Systems.
- Archive digital data rather than having to keep paper documentation and blueprints.
- Save time on measuring and recording building dimensions, eliminating the need to return to site for additional measurements.
- Utilise the scan data to audit your BIM model, comparing progress scans to design intent throughout the construction and coordination stages.
- Maintain an accurate as-built model by capturing live data throughout construction.

“Our 3D Laser Scanning team creates an incredibly accurate computer model of your site by taking millions of points of data. We call this a ‘point cloud’. We then join the point clouds together to create even bigger clouds of information. This 3D data can be used directly to provide crucial measurements instantly and develop the BIM model.”

Mark Chiang, Site Surveyor, Redstack Singapore
3D SCANNING

3D SCAN TO BIM WORKFLOW

DATA COLLECTION
- Building Scanning
- Building Capture

DATA CONVERSION
- Point Cloud Pre-Process
- Data Cleaning Process

PROJECT APPLICATION
- 2D CAD Drawing
- 3D Model

3D LASER SCAN TO BIM PROJECT REFERENCES

Heritage House, Singapore

Conventional Building, Malaysia

Infrastructure, Qatar
Redstack ensures the data required for ongoing management of the completed building are understood early in the design process. This ensures all the data required for Facilities Management is captured throughout design and construction, giving Facilities Managers all the data they need for ongoing management of the building. This allows building owners and occupants to manage costs and improve asset utilisation.

Redstack uses ARCHIBUS integrated solutions to leverage pre-existing data, deliver highly accurate data and ease the burden of supporting multiple systems to improve operational effectiveness.

**BIM TO FACILITIES MANAGEMENT SERVICES**

**IMPROVED FACILITIES PLANNING AND MANAGEMENT**

We help our clients leverage BIM data for facilities management and space planning. With the correct tools and processes, we can minimise unnecessary capital expenditure, improve strategic decision-making and increase operational efficiency with improved collaboration and data sharing capabilities.

“Facilities Management tools extend the value of BIM with intelligent assets. This puts the power in the hands of the end users to build powerful and dynamic applications within the integrated 3D model framework.”

Mohd Danial, Project Manager, Redstack Malaysia
Extending BIM with FM solutions provides advanced capability to manage utilities and assets such as gas, water, sewerage or electrical assets. Public works departments and universities are responsible for a myriad of infrastructure assets including signs, lighting roads, trees, furniture and more. Our FM solutions empower our clients to manage their assets, utilities and infrastructure.

Oscar Fang, FM Consultant, Redstack Taiwan
Implementation professionals require the ability to integrate and adjust existing workflows and processes in ARCHIBUS software. They also need to define specific messages and notifications, or simply add or edit events, actions, or requests. This add-in solution offers a graphical process designer tool to easily change views and workflows, as well as service desk roles and security groups, without any extra coding.

The Graphical Workflow Engine add-in, reduces the effort needed to implement changes in the workflows using an intuitive graphical definition wizard for all activities and management views.

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<th>KEY FEATURES</th>
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<td>• No programming needed for workflow definitions</td>
<td>• Easy definition of responsible Roles</td>
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<td>• Reduced errors in process definition</td>
<td>• Three Simple Steps: Define, Design and Go</td>
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<td>• Reduced implementation workload</td>
<td>• Request Management Console</td>
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<td>• Reduced implementation cost</td>
<td>• On the fly Add Notifications, Actions and other Events</td>
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<td>• Improved client satisfaction</td>
<td>• Design Workflow Management Views</td>
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<td>• Effortless update and optimisation of business processes</td>
<td>• ARCHIBUS View Generator</td>
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<tr>
<td>• No impact on upgrades</td>
<td>• Graphical Drag &amp; Drop Workflow Business Process</td>
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<td>• Graphical visualisation of Request Status</td>
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"Graphical Workflow Engine (GWE) is a fine piece of software which can make your life a lot easier when you need to design and implement workflows."

Anna Maria Linek, Business Developer, Redstack Partner
BIM models are created using intelligent objects that represent walls, doors, floors, equipment, plumbing, and so on – everything that goes into constructing a building. This can include security equipment. By incorporating security elements in the BIM model, visualisation tools can then be used to analyse and improve the security of your building. Visualisation and simulation tools can be used to analyse evacuations for example.
BIM and VR Solutions allow you to immerse yourself and your clients inside the building, providing a far greater experience than viewing construction drawings. Taking the BIM data, users will be able to view the proposed 3D model in an actual environment and make alterations where required before construction begins. We bring BIM Models to life, combining the latest technologies including Fuzor and our own RealtimeVIEW solution.

The ability to offer a real walkthrough in the 3D model provides a significant competitive advantage, speeds up decision making processes and results in design improvements, minimising problems on site during construction.

BIM+VR closes the gap between design and the construction site.

“Fuzor is a multi-faceted software that takes your project from the conceptual design phase all the way through construction and facilities management. It is a VR solution, a 4D scheduler, a visualizer, an analysis tool, and much more, all bundled into a single powerful package. VR also offers significant benefits beyond construction for Safety Training, Design Review, Construction Coordination, Sales, Marketing and more.”

Ryota Ishikawa, Project Engineer, Redstack Japan
Redstack can provide complete virtual experiences that give clients and project team members an accurate sense of your space and facilities. Our virtual tours can be created from 2D or 3D data of your properties for easy viewing through a web browser on a range of devices. There is no need to download any software to view a virtual tour. Speed up buying decisions by offering an immersive 3D experience that is so realistic, your client will be amazed.

**COMPATIBLE HARDWARE**
COMPATIBLE VR HARDWARE

Redstack created an interactive 3D model with VR ready as part of the Virtual Tour experiences using latest technology to enhance the way we expand our business today. This solution is ideal for Real Estate Agents, Property Developers, Architecture firms, Tourism, Hotels & Restaurants, Convention Centre, etc.

Hanes Wallace, Visualisation Consultant, Redstack Malaysia
Redstack partner with RMJM to provide global BIM architecture and modelling services, covering everything from conceptual design to as-built 3D models. RMJM is one of the largest international architecture firms in the world with expertise in architecture, interior design, master planning, urban design and landscape design.

With more than 50 years of experience in shaping exclusive visions for each individual client, RMJM’s portfolio encompasses over 2000 projects in private and public sectors comprising civic, commercial, education, healthcare, hospitality, mixed use, residential, and transportation proposals located across 6 continents.

Our process is design-led and perpetually seeks creative solutions tailored to each project. With the global network and the long history of RMJM, we have a deep understanding of international standards, as well as extensive knowledge of local values, which play an important role in our design process.

We value strong relationships between the client and the firm, and believe that the collaborative approach is the key to creating desirable and successfully built environments for the client and the public.

The driving force of the RMJM process is not being satisfied with simply resolving given tasks in the project, but adding value to the project by discovering and enhancing latent potential.
RMJM have delivered successful projects all over the world in a range of industries including healthcare, education, sport and leisure, transport, commercial office buildings, infrastructure, land development and more. The partnership with RMM gives our clients access to a vast array of global resources and experience, allowing us to deliver outstanding results for clients at a local level regardless of the location, size and type of project.

Redstack’s partnership with RMJM creates a strong global network covering 6 continents. Through this partnership, clients have access to over 2000 staff members representing 56 nationalities and speaking more than 40 languages. We believe that the dynamic cultural diversity embedded in the firm ensures that each project is approached with an international perspective that is reinforced with unique local values.

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Simone Cellitti
Managing Partner, Rome Italy

Robert Tripi
Managing Partner, Rome Italy

Shoichi Sato
Project Consultant, Tokyo Japan

Jack DeCandia, Global BIM Director