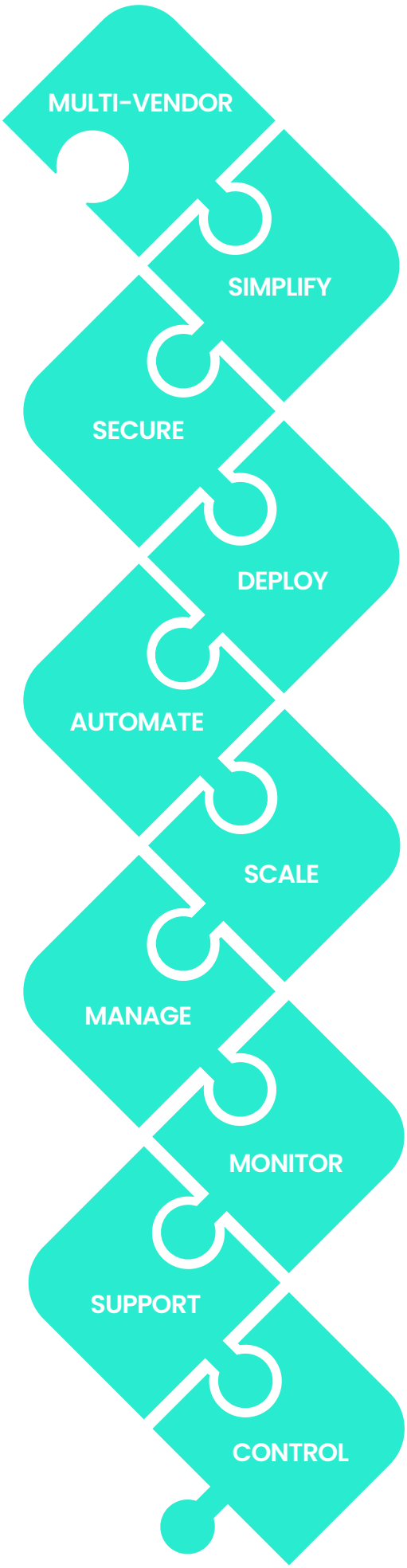
Introducing Innomesh



An Information Whitepaper on

Unifying the Deployment, Monitoring, Control and Support of Multi-Vendor Audio Visual and UC Equipment within a Single Application Powered by AI

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POLAR

BACKGROUND

The Importance of AV to 21st Century Working and Learning

The Audio-Visual (AV) estate within your organisation is almost certainly more ubiquitous than you probably realise, with AV the essential infrastructure for many different communications with customers, colleagues, suppliers and investors.

When video communication was in its infancy, video conferences took place over specialist telecoms networks, such as dedicated ISDN digital telephone lines. As projectors, displays, and many forms of video transmission gained a foothold in both higher education and the business world, AV networks, separate from the main computer networks, were used for video traffic. IT network teams didn't understand or trust what they perceived to be unmanaged AV devices on their enterprise network, and 'computer says no' really was a thing. And even today, some AV purists still don't trust IT networks as reliable enough for demanding AV solutions that crave broadcast quality low latency.

Consider where AV solutions are deployed throughout your business, from customer-facing digital signage displays in reception to the C-Suite boardroom, and almost everywhere in between.

- Meeting Room Booking Systems
- Unified Communications [UC] with MS Teams™ / Zoom™ Enabled Rooms
- Audio Systems – microphones, speakers, sound processors
- In-House Broadcast Studios for Virtual Press Conferences and more
- Cameras, Displays, Signal Extenders, Media Players, Control Systems
- Wireless Presentation, i.e. Barco ClickShare™
- Evacuation and Mass Communication Systems

If in any of these deployments your AV equipment isn't working correctly, your reputation could sink, and colleagues can't do their jobs effectively. Whatever the reason, equipment failure or user error, the non-performance of AV equipment costs time, money and perhaps risks damaging a hard-won reputation.

Selecting Best-in-class Multi-Vendor Solutions

When configuring any space with AV equipment, choosing best-in-class technologies creates exceptional experiences, which in turn requires equipment from multiple vendors. Most equipment vendors' software enables remote access only to their equipment, requiring multiple Apps just to monitor and control a single room.

Today, IT and AV are now so interoperable that IT and AV exist together in the job titles for project managers, service leads and many more. For so many business disciplines, the Digital First approach has become normalised, and Cloud-First infrastructures based on SaaS models (Software as a Service) have become the most effective way for enterprises to deploy technology in so many critical areas of their business.

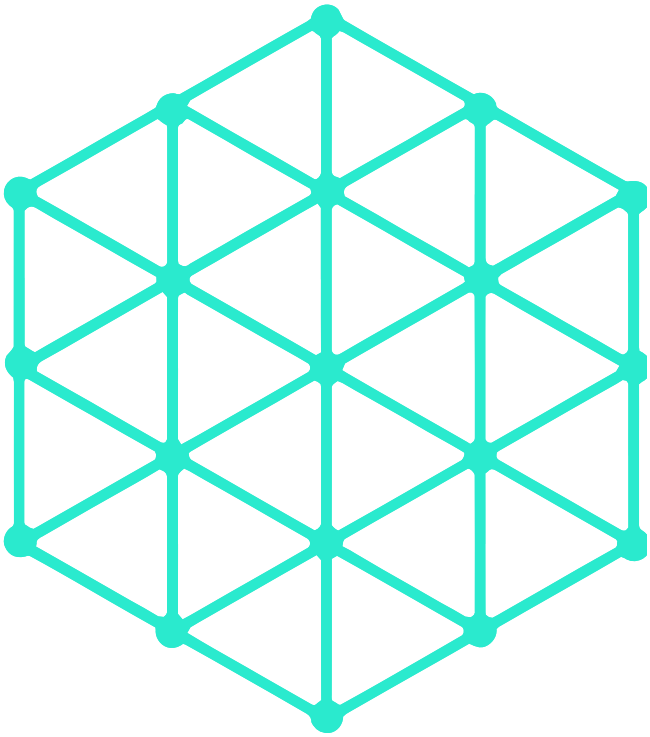
Servers or SaaS?

SaaS platforms delivering Private, Public and Hybrid Cloud Solutions are at the centre of business, consumer and social technologies that we all now rely on professionally and personally. It therefore makes no sense that some AV designs still utilise separate hardware controllers for individual meeting rooms or learning spaces.

Increasingly, the day-to-day management and support of AV (and UC) hardware now resides with IT teams, which in many cases have assimilated their previously separate AV teams, and IP connectivity on a single network has become the reality. The requirements of Cloud-first IT infrastructures based on SaaS is pushing the selection and deployment of AV solutions forward. In all likelihood, if you won't cloud connect, you won't have a future.

Why a Single Pane of Glass?

In a multi-vendor environment, having a multiplicity of different Apps to monitor and control equipment is worse than just inefficient. Having to open different applications, where each one only gives you a partial understanding of the bigger picture, has many drawbacks. Firstly, in the event of a failure, how many different software applications will you need to launch to discover the cause? Secondly, in addition to their monitoring and control capabilities, vital data about the usage of your equipment are captured by these Apps, enabling insights into performance, efficiencies, sustainability and more. Using a single application brings the power of your data together so it can be viewed in context, enabling better reactions and decisions on deployment, support and maintenance. As data is collected and analysed over time, the Innomesh's AI capabilities will proactively help increase the effectiveness of routine maintenance, system design, future deployments for room upgrades and increasing capacities.



Today's Requirements for AV Deployment, Monitoring and Control

Cloud connectivity provides scalability to connect with technology irrespective of where it is located. Organisations with multiple buildings in multiple locations and even multiple time zones, benefit from having the information about their entire AV estate in a single pane-of-glass.

SaaS deployments enable organisations to communicate directly with the software provider and eliminate the potential delays and additional costs of being reliant on a third-party provider. They might also need the flexibility of utilising several contractors simultaneously when large projects are being delivered, all of whom can contribute to their standard workflows for configurations, integrations and documentation.

Best-in-class environments will be designed and created with AV equipment from multiple vendors. Designs that only promote a single vendor are holding back success, and introduce potential difficulties around deployment, monitoring and support, especially when there are supply chain shortages, which have been prevalent over the last few years, and a shortage of qualified programmers for a specific proprietary platform.

Every end-user's needs are different. Some will only want to monitor their AV estate with alerts when something is not working correctly. Others will want to benefit from remotely taking control of their equipment and correcting a user error immediately a problem is detected, and there will be those who want in depth data around user behaviours, space utilisation and much more. Those wanting to start with just the basics know that they are not paying for services and capabilities they don't currently require, yet have the comfort in knowing that should they want to develop their in-house capabilities further, they can add features when the time is right.

In a world of short-lived startups, end users recognise the assurances delivered by an experienced, mature, and widely adopted solution, so that their business is not disrupted by a failing startup.

WHY INNOMESH?

Innomesh is the AWS cloud native SaaS Platform from Innomate, an software development company with over 7 year's expertise in AWS services, providing cloud-native vendor-agnostic monitoring, control, and document storage, as well as data, analytics and reporting, for your entire AV and UC ecosystem.

The comprehensive features that set Innomesh apart were specified by, and developed in conjunction with, some of Australia's leading Universities, where the demands on AV systems to perform for tens of thousands of students are amongst the most demanding and critical end user environments.

Using Innomesh, organisations can integrate devices and software from different vendors without relying on proprietary controls, allowing you to deploy, monitor, support and control different vendor systems through a single platform.

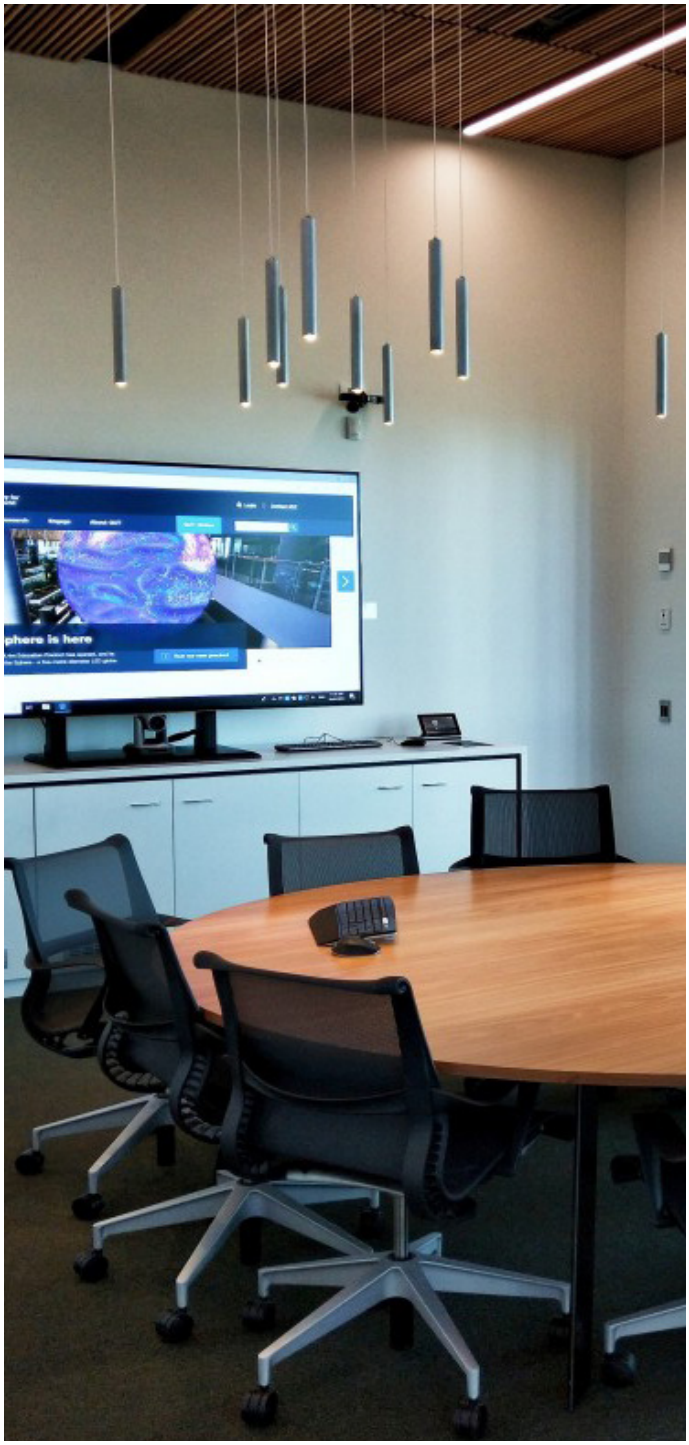
Key Benefits:

- No on-site servers – true SaaS platform.
- 99.99% SLA Score with 2N Redundancy as standard
- Supported directly by Innomate, including free training
- ServiceNow Ticketing
- UC (Teams, Zoom and Cisco Webex, Teams/ Slack Chat)
- Full SSO Integration
- Vendor-Agnostic – supporting best-in-class AV deployments
- Monitor, Control, and Analytics, all on a single-pane-of-glass
- Extensive device driver library
- Library of Templates for MarketSpace Members

Cloud-Native SaaS Platform

Leveraging more than 25 AWS services, Innomesh is fully cloud native to AWS, providing the elasticity, flexibility, and resilience of the cloud. Throughout the last five years, Innomesh has been providing end-to-end application-level high availability, with a 99.99% SLA score. This is achieved by having 2N redundancy as standard, with the option to have the even more demanding 2N+1for organisations which cannot allow even the very smallest chance of minor service interruptions. With these levels of system reliability, you can concentrate on driving business success and not the technology.

As a true SaaS service, as Innomesh is developed, each new improved version is provided to all clients without added cost. This continual incremental improvement strategy is known as an 'Evergreen' approach.



Deployment

All the metadata and documentation for the hardware in your rooms are incorporated into the room provisioning workflow, enabling anyone you give access to, including contractors and integrators, to seamlessly work through the entire process of room onboarding, including any submitted handover documentation.

Using a single sign on to the Innomesh web-portal, no additional tools, scripts or other manual steps are required to configure and update rooms, including documentation.

Role Based Access Control (RBAC) allows you to assign any required restrictions on all aspects of room deployment and updates, including template creation, along with access to room monitoring and data insights.

Additionally you can sign up to MarketSpace where Innomesh users share room configuration templates that can be used and modified within your own Innomesh tenancy. And, of course, you can share your own templates with the MarketSpace community too.

Monitoring

Without any on-premises servers, Innomesh utilises the AWS cloud-native standardised platform that is technology-agnostic, to combine the monitored data from different vendors' technology onto a single-pane-of-glass.

Automatic alerts are generated when error conditions rated from low to critical are detected. A 'low' category alert could be something like the rechargeable wireless microphones have not been placed back in their docking station, whilst a 'critical' alert would relate to an environment-wide failure, if, for example, the electricity supply for the whole building has been interrupted.

For any level of alert, the user can drill down for more information.

Direct Support with Innomate

The Innomesh platform enables you to be autonomous.

In most cases, Innomesh's constant remote monitoring will advise you of an issue before anyone in the room has encountered a problem. If you've opted for the Space Tier for any of your rooms, you have the ability to control any of the equipment remotely for those spaces, for example to change an input or reboot an appliance. If an engineer is needed, again you can direct a resource to solve an issue before it would have been detected manually.

To get you fully conversant with the Innomesh platform, Innomate offers free unlimited training, access to a library of 'walk-through' explainer videos, and full online documentation.

Innomesh customers, along with their contractors and integrators, have direct support with Innomate, including chat on the Innomesh Portal and a Zendesk ticketing portal. All critical issues are automatically detected by the Innomesh platform and immediately escalated internally to the support team in their NOC, as well as being communicated to your on-ground support team. The Innomesh support team aim to respond to any critical incident within 15 minutes, and to determine the resolution, or implement a workaround, within 1 hour.

Cloud, Data and AI

The data that provides the facts on how our systems are running is a valuable commodity. For example, when it comes to energy consumption, the data shows us if sustainability goals are being met and where improvements can be made.

The data about the communications that our AV systems are enabling, helps us to make better business decisions, helps us determine what a better end user experience looks like, and enables better support.

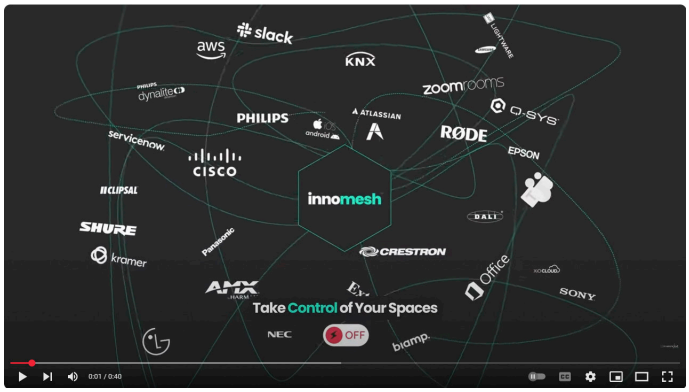
Data is the fuel required by machine learning AI, and Cloud-based systems that are continually monitoring performance harvest the data to drive discoveries forward. Data-driven outputs will improve end user experiences with technology – incorrect or contrived usage can be detected and improved, will inform better business decisions, and enable faster resolution times when problems occur.

Innomesh, a fully cloud native platform utilising a wide range of AWS services, including container-based cloud technologies, uses the resilience of the cloud to gather the data you need to deliver innovation and value to your business, from the extensive deployment of best-in-class multi-vendor AV and VC systems across your network.

Video Links

https://www.youtube.com/watch?v=LZGc9XXJMRs

Customer Testimonials



https://www.youtube.com/watch?v=a0gxUiZbKjA

What is Innomesh, and what does it do?

CONTACT

To arrange a demo and discover much more about Innomesh, contact:

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Compare Innomesh SaaS Platform Subscription Options

Compare the three diffenet subscription options. *Pulse, Sight* and *Space.* Control, monitor, secure, automate and simplify your AV and UC environment in a single overarching platform.

FEATURE	Pulse	Sight	Space
Web portal and room manager	●	●	●
Evergreen regular feature updates	●	●	●
Single Sign On	●	●	●
Multi-regions and multi-zones	●	●	●
Option for hosting at the edge	●	●	●
Role-based access controls	●	●	●
Configuration management	●	●	●

MONITORING	Pulse	Sight	Space
Endpoint monitoring	Network-driven	Data-driven	Data-driven++
Asset discovery and tracking	Network-driven	Data-driven	Data-driven++
Alerting	Network-driven	AI-driven	AI-driven
Performance and uptime tracking	●	●	●
Innomate NOC Pro-active Monitoring	●	●	●
IT service monitoring (DNS, DHCP, TLS, HTTP/S, Links)	●	●	●
Slack and Microsoft Teams notifications	●	●	●
Event logging and audit trails	●	●	●
Endpoint metrics and data points		●	●
Room information database and search engine		●	●
Document management		●	●
IT infrastructure monitoring (apps, compute, memory, storage)			●
Innomate NOC troubleshooting and root cause analysis			●

SUPPORT AND SLAs	Pulse	Sight	Space
ServiceNow ticketing integration	●	●	●
Customer support	Zendesk and live chat	Zendesk, live chat and phone	Zendesk, live chat and phone
Remote troubleshooting			●

DATA, ANALYTICS AND REPORTING	Pulse	Sight	Space
Data collection	Network data	Data ETL	Data ETL and native data
Dashboards and visualisations	●	●	●
Historical and live data	●	●	●
Predictive analytics		●	●
Actionable insights		●	●
Occupancy tracking*1		●	●
Space usage tracking		●	●
Technology usage patterns		●	●
Technology and energy wastage		●	●
Endpoint central logging		●	●
Native (AV) data			●
User behaviour patterns			●
UX and user sentiment analysis			●

AV CONTROL	Pulse	Sight	Space
Highly Available (AV) Control			●
Agnostic Cloud-native (AV) Control			●
Vendor-native (AV) Control			●
Vendor-native (AV) middleware features			●
HTML5-based touch panel UIs			●
Mobile-based touch panel UIs			●
Customisable in-room UX/UI			●

DEPLOYMENT AND INTERGRATION	Pulse	Sight	Space
Co-exists with existing infrastructure	●	●	●
No-code self-serve setup	●	●	●
Web-based simple deployment workflows	●	●	●
Mass deploy rooms in minutes	●	●	●
Multi-vendor agnostic integration	●	●	●
Configurable business logic and drivers			●
Free MarketSpace end-to-end solution templates*2			●

OPS ADD-ON	Pulse	Sight	Space
Multi-vendor endpoint management (firmware, configuration, actions.)*3	●	●	●
Data-driven automation and self-healing		●	●
Room management (actions)			●

UC ADD-ON	Pulse	Sight	Space
UC alerting unified with AV alerting in one view (hotlist)	●	●	●
Microsoft Teams Rooms and Zoom Rooms USB peripheral monitoring	●	●	●
MTR management (firmware, OS, configuration, metrics)	●	●	●
Zoom room management (firmware, OS, client, configuration, metrics)	●	●	●

Notes:

*1 – Dependent on Compatible IoT Sensors and People-Counting Cameras

*2 – Requires participation in the MarketSpace for Room Template sharing

*3 - Dependent on device and vendor