







## FUTURE PROOF YOUR MISSION CRITICAL COMMUNICATIONS

With lives at stake, you need to work with the industry leaders in unifying Public Safety communications

Public Safety agencies are committed to P25 interoperability and to supporting their users with the latest technology. With lives at stake, you need to work with the industry leaders in unifying Public Safety communications. From a single P25 site to a nation-wide network, Tait will integrate all your technologies, including LTE and smart devices, into the core P25 solution to give you seamless communication and situational awareness.

The new Tait P25 9400 system series supports P25 Phase 1 and Phase 2 operation and meets the P25 standard for full interoperability. Tait offers a unique P25 eco-system with industry leading software solutions, a large choice of partners for dispatch consoles, media recorders and tailored services.

Tait has a reputation for building tough products and resilient networks. We design, deploy and support each client solution from end to end and, to ensure each system succeeds, our global services team work with your organization to deliver an upgrade that is seamless, on time and within budget.

Whatever your goals, your solution should be defined by your objectives. Insisting on open standards ensures choice and protects your investment over the life of your communications.

Talk to us about creating a safer, simpler, smarter, P25 critical communications future.



#### ■ Tait P25 Conventional or Trunked Phase 1 and Phase 2 Networks

Radio interoperability is mission critical. Competition ensures value. Our Compliance Assessment Program (CAP) laboratory guarantees Tait P25 solutions interoperate seamlessly with equipment from other manufacturers.

**Reliability is non-negotiable.** Tait customers have the confidence that comes from P25 products that have been proven by the most demanding Public Safety customers.

Flexibility allows you to plan for the future. Our 9400 series P25 Phase 1 system is software ready to Phase 2 operation when you need additional system capacity.

**First responder safety is paramount.** That's why our P25 radios support location based services and other life-saving data applications.

Tait P25 is a non-proprietary, fully featured, genuine open standards-based public safety communications platform that offers you:

- Linear Simulcast Modulation (LSM) means P25 Trunked Phase 1 and P25 Conventional simulcast networks with fewer sites when compared to standard C4FM Simulcast.
- DQPSK simulcast modulation for P25 Trunked Phase 2 also enhances delay spread performance.
- Terminals operable in multi-mode (Analog/Digital) configuration allowing for seamless migration.
- Highly-secure, end-to-end Advanced Encryption technology.
- High availability redundancy and geolocation
- Open standards based technology, allowing best-inclass partnering solutions, including: Phase 1 and Phase 2 consoles/dispatch, media recorders, FDMA/TDMA accessories, network system gateways and others.

#### — Tait P25 Trunked Phase 1 and Phase 2 –

# **PRODUCTS**

# WE DESIGN, DEPLOY AND SUPPORT END-TO-END P25 NETWORKS

#### **Tait Tough Portables**

### TP9400 P25 Portable: Rugged, feature-rich and critical communications-grade

The TP9400 is one of the smallest and lightest critical communications grade P25 portable radios on the market. (Watch our "Tait Though" videos on the web)

TP9400s are designed tough, for rugged environments and uncompromised worker safety.

Versatile for all P25 standards-based networks, the TP9400 can operate in analog or P25 conventional mode, P25 Phase 1 digital trunked and P25 Phase 2 trunked operation.

#### **Key features:**

- VHF, UHF and 700/800MHz frequency bands.
- Multi-mode operation (Analog, Digital, Conventional, Trunked, P25 Phase 1 and Phase 2).
- Interoperability in accordance with P25 standards.
- Encryption, voice and data, simulcast support and preset status messages.
- IP67 compliant and has surpassed MIL-Standards for durability.
- Lithium-ion battery for longer performance.
- Programmable emergency key for easy access in an emergency.
- Intrinsically Safe as an option.
- Audible channel annunciation, and other functions, keep first responder eyes on the mission.

#### **Tait Tough Mobiles**

### TM9400 P25 Mobile: Flexible, reliable and critical communications-grade

A high performing critical communications-grade mobile, designed to deliver quality audio and intuitive operation for the many challenges that first responders face.

The TM9400 offers multiple modes of operation to suit user needs: analog, LSM (CQPSK) decode, P25 Phase 1 FDMA conventional/trunked, and P25 Phase 2 TDMA trunked (which doubles the talk paths per voice channel.)

With multiple configuration options, programmable function keys and software licenses available for additional features the TM9400 is a future-proof communications choice.

#### **Key features:**

- VHF, UHF and 700/800MHz frequency bands.
- Multi-mode operation (Analog, Digital, Conventional, Trunked, P25 Phase 1 and Phase 2).
- Interoperability in accordance with P25 standards.
- Encryption, voice and data, simulcast support and preset status messages.
- IP54 rating and water-resistant control head that exceeds MIL-STD-810G.
- · Options slot for flexible expansion capacity.



#### **Base Stations**

### TB9400 Base Station: Cornerstone of a mission-critical Tait P25 System.

Designed for mission-critical operations, Tait's secondgeneration, native IP base station is intelligent and reliable to mitigate network outages.

Genuine, P25 open-standards compliance provides interoperability with other agencies and greater choice for sourcing mission-critical communications.

#### **Key features:**

- Smooth migration from P25 Phase 1 to Phase 2.
- 12.5kHz P25 Phase 1 FDMA operation, LSM (Linear Simulcast Mode).
- 6.25kHz equivalent P25 Phase 2 TDMA trunked operation with double voice capacity.
- Extensive, secure remote management and monitoring options.
- Inbuilt diagnostics with detailed alarm monitoring and management via IP.
- Access level control and multiple user accounts.
- Inbuilt spectrum analyzer to investigate co-channel interference remotely.
- Last configuration storage reverts system to prior software load remotely.
- Internal voting in trunked P25 networks with multiple levels of redundancy.
- Tait TB9400 also supports P25 Trunked Phase 2 DQPSK Simulcast modulation (with a delay spread efficiency very close to LSM).

## Tait Site Controllers and Radio Frequency Sub-Systems

#### TN9400 Core Network: Intelligent, reliable and robust

Tait's P25 TN9400 digital trunked networks are IP-based and provide open standards compliant, mission-critical communications over wide geographic areas. Their extreme resilience and multiple levels of redundancy will deliver critical communications you can depend on. Their flexibility will ensure your organization can deploy cost-effective infrastructure to meet changing operational needs now, and into the future.

#### **Key features:**

- P25 Phase 1 and Phase 2 trunked simulcast.
- P25 standard Console Sub-System Interface (CSSI), in Phase 1 and Phase 2.
- Network interoperability with other agencies via the Inter-Sub-System Interface (ISSI) or Trunked Analog Gateways (TAGs), in Phase 1.
- Remote management for operational efficiency.
- PSTN Gateway for telephone connectivity in P25 phase 1.
- High availability redundancy.
- Multi-type partner solution; console/dispatch, media recorder, application solutions.



Tait Enable is a suite of extendable management tools and middleware that place the control of your radio network firmly in your hands.

## EnableFleet: radio fleet management made easy.

Configure and manage your radio fleet, from a central point.

#### **EnableFleet delivers:**

- Centralized radio configuration and firmware management.
- Accurate and reliable fleet information eliminating duplicate IDs.
- Consistent installation results.
- Cost-effective and easy in-field programming.
- Low stress delivery of updates using client application or Over The Air Programming (OTAP).
- Real-time client-server updates and fleet status display.
- File attachment support for installation auditing.
- Secure fleet data.
- Flexible server-side hosting options.
- Comprehensive reporting.

## EnableMonitor: automated network monitoring and alerting.

Real-time monitoring confirms that your network is operating as expected, to minimize impacts if problems occur.

#### **EnableMonitor delivers:**

- Real-time system health status. Diagnose issues early, reduce network downtime.
- Proof that your network is operating efficiently.
- Reporting on your IT network availability and infrastructure.
- Email, SMS and other alerts and alarms if there is an issue.
- Automatic discovery and configuration for simplified setup.
- Standards-based technology for interoperability.
- Secure access to performance data anywhere, anytime.
- Redundancy options for guaranteed performance.
- Customer support for your peace of mind.



# **EnableProtect** - Advanced System Key: The smart way to stay secure and control your fleet programming.

Layers of security mean you can define who has access to defined levels within your radio network.

#### **EnableProtect Advanced System Key delivers:**

- Authorization approved users are supplied Tait produced USB prime or pass keys for P25 trunking (phase 1 and Phase 2) to limit radio programming rights to specific radio IDs and talk groups.
- Authentication passwords and anti-cloning on the pass keys ensure that only authorized personnel can access and program your radio network.
- Accountability programmable expiry dates and usage limits retain control over the prime and pass keys in the field.

EnableProtect - Key Fill Device: The smart way to encrypt your radios in the field.

#### **EnableProtect Key Fill Device delivers:**

- Secure in-field encryption management.
- Standards compliance.
- Intuitive user interface.
- Rugged to withstand harsh environments.
- Fast key fill for rapid deployment on multiple radios.

EnableProtect - Key Management Facility: Highly efficient remote security management.

Remotely manage encryption across your radio fleet.

#### **EnableProtect Key Management Facility delivers:**

- Centralized key management.
- Standards-compliant Over the Air Rekeying (OTAR) of your P25 radio fleet.
- User-friendly dashboard for fleet status information.
- Secure, intuitive web-based interface for set-andforget operation.
- Remote inhibit/permit radios.



Tait delivers unified critical communications solutions with a wide range of technology partners.

Our dedication to deliver value to clients across the globe motivates us to work with best-in-class partners. In an increasingly complex communications environment, our clients depend on us to work with best-in-class partners to deliver solutions that achieve exceptional operational results. Our clients expect choice and they expect on-going support for each integration between their Tait network and partner products. Tait stands behind all of our partner solutions with a full commitment to support the Tait interface.

We are committed to open standards because they make partnering and collaboration easier and more efficient, drive innovation, and allow us to bring new capabilities to market in an agile fashion.

Tait are proud of our strong partner relationships. Together with our partners we deliver world-class solutions for clients every day.

**Our P25 Endorsed Technology Partners:** 

















































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### Tait Technology Partner Program

Tait is committed to open standards and to offering our clients choices and options. The Tait Technology Partner Program provides a framework for Tait and our partners to work together to develop integrated critical communications solutions for our clients. Our partner ecosystem allows us to respond to the continually changing market requirements in new and innovative ways.

The Tait Technology Partner Program leverages best practice to deliver a seamless experience for our clients through the three key stages of their solution purchase: design, deploy and support.

#### Why become a Tait technology partner?

Tait's category management approach to technology partnering gives you access to dedicated commercial and technical resources. This includes:

- A dedicated Partner Product Manager, who champions you and your solution within Tait
- Access to technical documentation, expertise and hardware for solution integration
- Introduction to our solution specialists and our regional partnering and sales teams, to offer your solution to our client base as fast as possible
- Regular updates on our product roadmaps and solution plans

 The opportunity to work with our marketing team on co-marketing activities

## What do we look for in a technology partner?

- Complementary and innovative products and
  convices.
- Similar organisational culture and client focus
- Commitment to open standards

#### The program has two partner levels

- Registered
- Endorsed.





#### Tait

# **SUPPORT SERVICES**

### SERVICE **ADVANTAGE** EXPRESS LAUNCH KIT (INTERNAL USE ONLY)











Best practices for ensuring service continuity across organizations directs communications professionals to be in a constant state of moving the reactive to proactive.

Service Advantage from Tait Communications is a unique blend of services and tools that enables communications professionals to work proactively towards ensuring predictable delivery of service.

Service Advantage extends well beyond warranty entitlements and technical support plans found in the market today, by providing real-time access to meaningful services and tools traditionally available only to the manufacturer.

And more importantly, these come as standard with Service Advantage, not as optional.

Service Advantage includes as standard:

### 24 X 7 Service Desk with Service Level Agreements

Engineers work to published Service Level Agreements (SLA) for response and service restoration – ensuring your priority becomes theirs. Tait Support Engineers perform problem resolution activities ranging from end-user assistance to remote diagnostics, all the while updating status, notes and results in your custom online service account.

#### 24 X 7 Online Service Portal

Using a web browser and secure login, access your customized online service portal to create new, track active, and review past service cases – generating a comprehensive view of service performance. Download firmware and software updates as well as calibration and service kits used to configure, diagnose and update your communications equipment – proactively managing your equipment when

convenient for you. Leverage comprehensive technical documentation including guides for installation, integration, service and use, as well as technical notes and product specifications – developing a repository of knowledge within your organization.

#### 24 X 7 Asset Management

With access to a web browser, authorize log into a secure environment to perform tasks such as: Storing asset identification, location and ownership information – keeping everything in one place, Tracking asset transfer, status change and maintenance events – building a complete history of activity, Recording purchase, warranty and maintenance costs – providing a view of overall financial performance per asset

#### Software Maintenance

Full version releases with new features – not just point release bug fixes – are regularly available and fully supported so you get the maximum advantage when you decide to update your communications system. With each new release, Service Advantage clients receive an email alert and courtesy phone call from a Tait Support Engineer announcing its availability and discussing updates in the release that may offer helpful preventative measures based on your system.

#### Warranty Repair

We design, manufacturer and quality control all our own products – not outsourcing to low-cost bidders - so we can confidently deliver with the highest quality of materials and workmanship in the industry. In the event a defect is found, Tait will promptly correct the problem through free repair or replacement and resolve the issue back down to the manufacturing floor. We're that committed to quality and your satisfaction.

#### Tait

# **MANAGED SERVICES**

The range and complexity of skills and tools needed to manage critical communications radio networks have become a major distraction for many public safety agencies, utilities and other organizations globally. With over 40 years of expertise in designing and delivering complex radio communications networks, Tait Communications has responded to this challenge with a suite of managed service solutions.

Our Service Management Centers located around the globe are staffed with trained and experienced professionals using industry-leading management applications to look after your critical communications network, so you can focus with confidence on your business outcomes.

Tait Managed Services allows you to:

 $\textbf{Simplify} \ \text{your critical communications management}$ 

Maximize your system performance and reliability

**Optimize** your asset utilization, staff efficiency and investment

A range of configurable modules are available with Tait Managed Services, allowing you, regardless of your business size and complexity, to benefit from a tailored approach to suit your specific requirements.

TaitWatch

#### **TaitWatch**

- Asset tracking platform for radio infrastructure and radio terminals
- Web portal for access to reporting and asset tracking platform
- Regular briefings on performance, capacity and general network issues

#### TaitManage Infrastructure

- Full management of radio network infrastructure
- Asset management platform for radio infrastructure and radio terminals
- Web portal for access to reporting and asset tracking platform
- Customer advisory services on system performance, capacity and capabilities
- 24/7 Radio Infrastructure monitoring and incident notification

#### TaitManage Subscribers

- Service desk for full support of end-users
- Asset management for subscribing radio devices
- 24/7 monitoring and incident notification
- Web portal for access to reporting and asset tracking platform
- Customer advisory services on system performance, capacity and capabilities

#### TaitManage Lifecycle

- Analytical and advisory services to identify system capabilities and to recommend the optimal path to address gaps
- Full system upgrade, update, augmentation and replacement services
- Special projects to address customer specific issues and needs

#### **Contact Managed Services**

 If your business could benefit from world class network management tools designed specifically to manage and support your critical communications system, then please contact the Tait Managed Services team today for more information.

Email: managed.services@taitradio.com





