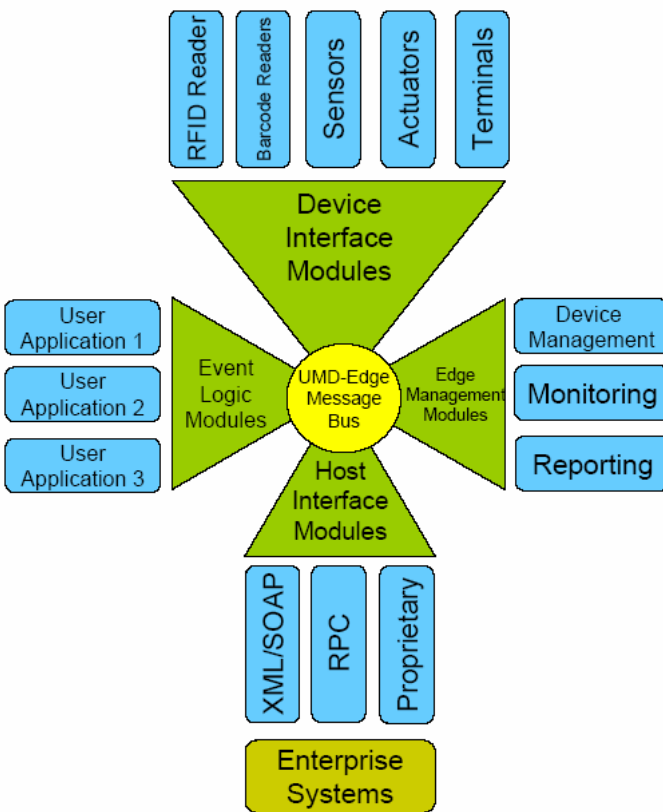


UMD-Edge™

Edge Device Management Platform

UMD-Edge™ is an Information and Communications Technology (ICT) platform that enables Enterprise Systems to relegate responsibility for control, management and monitoring of *Edge Devices*, such as RFID and barcode readers, actuators, sensors and human interface terminals.



UMD-Edge™ is based on next generation message management software, which moves data capture functionality from Enterprise Systems to locally based network devices.

The **UMD-Edge™** modular construction makes it ideal for many data capture applications, such as:

- Access Entry
- Asset tracking
- Environmental sensing
- Man – machine interfaces
- Stock control
- Warehousing

Advantages:

- *Separates* edge device infrastructure from centralised Enterprise Systems
- *Unifies* the interface between the Edge Devices and Enterprise Systems
- Operates *independently* of host applications
- *Flexible* – customised to meet each implementation's unique requirements
- *Scaleable* – scale out (multiple servers) and/or scale up (larger server).
- *Reporting*
- *Real-time monitoring* of traffic
- Links to a variety of *databases*
- *Troubleshooting tools*

UMD-Edge™ Technology:

The **UMD-Edge™** environment is provisioned as software running on one or more dedicated computer servers. There are two key elements to the software:

- 1) **UMD-Edge™ Message Bus** – This message bus allows *Software Interface Modules* to seamlessly interchange data and procedures. It is the core of the system that provides modularity and system flexibility.
- 2) **Software Interface Modules** – This is the software that uses the **UMD-Edge™ Bus** for communications. There are four types of module:
 - **Device Management Modules** – These modules are specific to each type of Edge Device. For each attached device, there is an instance of a Device Interface Module which holds device configuration data.
 - **Event Logic Modules** – These modules implement custom logic that operates on **UMD-Edge™ Bus** traffic.
 - **Host Interface Modules** – These modules are used to transfer data between **UMD-Edge™** and Enterprise Systems such as ERP systems. They typically use XML, RPC or SOAP technologies, but are not restricted to these protocols.
 - **Edge Management Modules** – These modules provide a human interface to the **UMD-Edge™** system via a web browser for device management and status monitoring.

Software Interface Modules are provided off the shelf from our growing library, or custom written to suit the application.

Example:

RFID installations can generate thousands of messages per minute and data needs to be filtered before it reaches the Enterprise System. **UMD-Edge™** Server solves this problem by separating the Edge Device infrastructure and data capture from the Enterprise System by:

- managing the many different Edge Devices: RFID & Barcode Readers and Sensors
- defining and controlling logic events: Enable RFID Readers when pallet is present
- pre-processing data: RFID tag filtering
- updating databases and logs: Update Product and Transactional logs
- generate alerts upon user defined triggers: advise me when pallet x arrives
- transferring data to host system: in a format it expects

Unique Micro Design can provide complete customised **UMD-Edge™** installations through our *engineering ICT solutions* offering. Get the “edge”, contact us at edge@umd.com.au or 03 9582 7000 to discuss your needs.