

5G/4G LTE M2M VPN SOLUTIONS

Unlock business capabilities. Anytime. Anywhere



5G/4G LTE M2M Solutions

5G/4G LTE M2M Solutions include the following two (2) components

- **High-speed Mobile VPN Industrial Routers and**
- **Device Management platform, D-ECS (D-Link Edge Cloud Solution)**

D-Link M2M VPN industrial routers use the high-speed mobile 5G/4G mobile networks to establish bi-direction secure and redundant data transmission paths between the business control centers and the remote IoT (Industrial of Things) devices. D-Link D-DEC is an easy-to-use tool for the MIS to effectively manage remote D-Link M2M routers.

Designed for remote machine-to-machine and secure VPN deployments, D-Link 5G/4G LTE M2M VPN routers unlock the business capabilities anytime, anywhere with high-performance 5G/4G/3G connectivity easily.

With the adoption of both Artificial intelligence (AI) and machine learning (ML), businesses are able to make good decisions with vast amount of data including video, sound, measurements, etc collected from a network of industrial sensors.



Key Benefits 5G/4G LTE M2M VPN Routers

Multi-SIM Design*



Zero downtime with multi-SIM failover design

Secure VPN Connection



Integrated VPN Client and Server support for secure connectivity

Industrial Grade Design



Zinc-plated steel casing for extra protection

Remote Management



Network management platform for massive IoT implementation

GPS Tracking



Central location tracking management

WiFi Connectivity*



WiFi connection for multiple wireless clients

Outdoor WAN Connectivity



Providing Internet connection for outdoor deployment

High Reliability of Network



Stable WAN access with WAN backup using M2M mobile routers

*model dependent

M2M Solves Your Internet Connectivity Problems

Un-stable Internet Connections



Cloud-based applications require businesses to maintain reliable WAN connections. Install D-Link M2M dual-SIM routers together with firewall, businesses can use cost-effective mobile network as (a) WAN Backup to increase the redundancy for mission critical applications and (b) load balance to enhance of data transmission efficiency over multiple WAN connections.

In-accessible to Fixed Broadband



Without accessing to fiber/Cable/ADSL WAN at remote locations and in the public transportation, high-speed mobile network with well-coverage is the best WAN infrastructure. D-Link M2M dual-SIM routers, supporting multiple frequency bands of 5G /4G (Cat 4/6) /3G, are able to work with any mobile operators.

Costly Fixed Broadband Charges



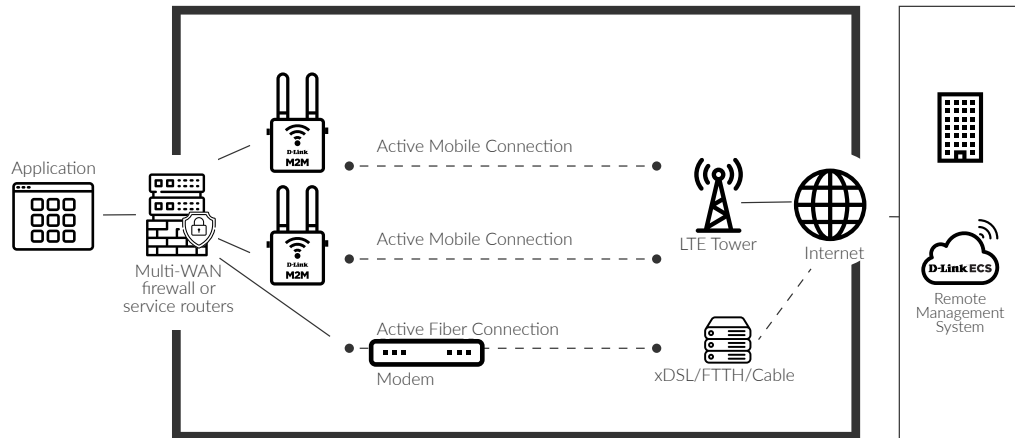
Remote IoT devices consume low-medium WAN bandwidth. Installation and monthly flat-rate subscription of fixed broadband for a network of IoT devices is expensive. D-Link M2M VPN routers connect IoT devices with low-cost, usage-based and INSTANT-ON mobile network. Built-in VPN client and server establish secure WAN transmission paths for data protection.

Applications of M2M VPN Routers for Businesses

Scenario 1

WAN Backup & Load Balance over Fiber and Mobile Connectivity

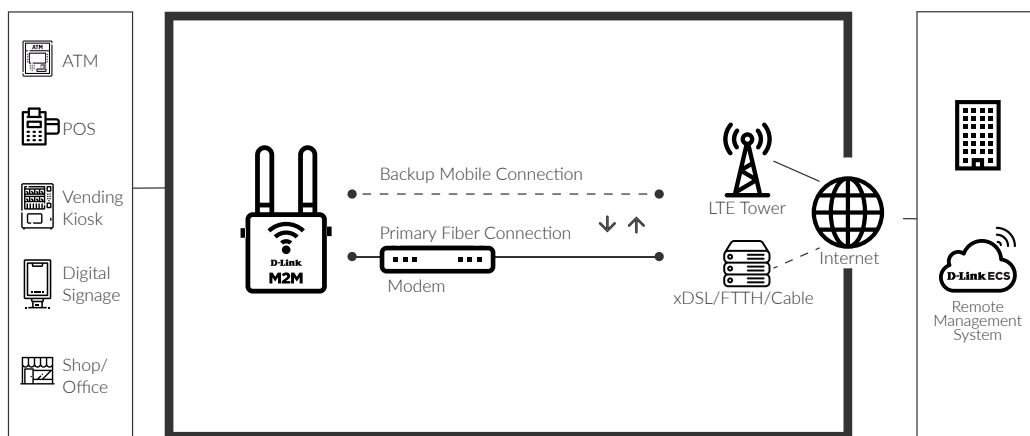
To provide uninterruptible WAN connectivity, connect firewall/service router to D-Link M2M VPN routers and establish load-balance multi-WAN broadband infrastructure with auto-failover redundancy. Comparing with using 2nd fiber as WAN Backup link, D-Link M2M routers with mobile network can cut down the monthly broadband cost drastically when setting up WAN redundancy for general office networks.



Scenario 2

Automatic Fiber-to-Mobile Failover

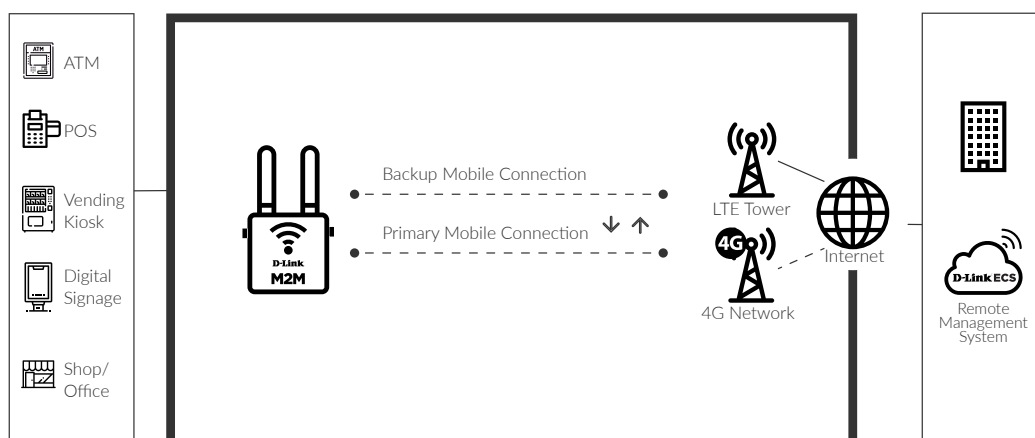
With D-Link M2M VPN router, failure of primary fiber broadband connection will automatically trigger the failover to backup mobile broadband network. For the mission critical businesses such as banking ATM, D-Link M2M VPN router adds extra redundancy with built-in dual SIM support.



Scenario 3

Automatic Mobile-to-Mobile Failover

With D-Link M2M VPN router, failure of primary mobile broadband (SIM 01) will automatically trigger the failover to secondary backup mobile broadband network (SIM 02). This is the most cost effective, reliable and secure WAN connection to bring back the valuable and sensitive data from the remote IoT devices.



Case Studies : WAN Backup

Provider of SD-WAN services with fixed broadband and mobile WAN Backup for Corporates

Service Provider

Top Managed Service Provider in Thailand

SD-WAN with fiber broadband provides high-speed and flexible internet connectivity to the corporate users. To provide high service quality with minimum downtime, 2nd backup WAN link is required.



Project Size

300 – 400 units

DWM-312

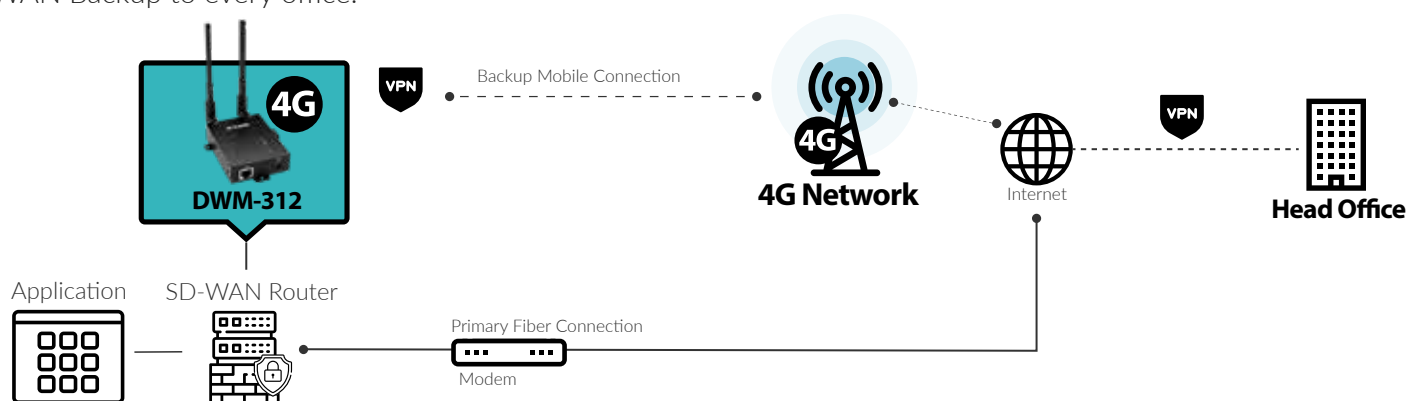
(4G LTE M2M VPN Router)

Challenges

Fiber broadband has drastically improved the speed of WAN connectivity. With quick adoption of cloud-centric office productivities and communication applications, any interruption of internet connection will seriously affect the company operations. Having 2nd fiber as backup link is an expensive option for general offices due to the costly fixed flat monthly subscription charges.

Solutions

High-speed 4G LTE mobile network with well signal coverage is a popular choice for internet access. DWM-312 (4G LTE M2M VPN router) brings mobile broadband as WAN Backup link. Connect DWM-312 to 2nd WAN port of SD-WAN router and activate the failover feature. Any failure of primary fiber link will switch the internet connection to mobile network via DWM-312. With built-in dual SIM slots, DWM-312 enhances the WAN redundancy with auto-failover between two (2) mobile networks. Data transmitted over public internet is also well-protected with VPN function integrated in DWM-312. D-Link M2M router brings affordable WAN Backup to every office.



Case Studies : Internet of Things (IoT)

Managing a Nationwide Network of Vending Machines

Service Provider

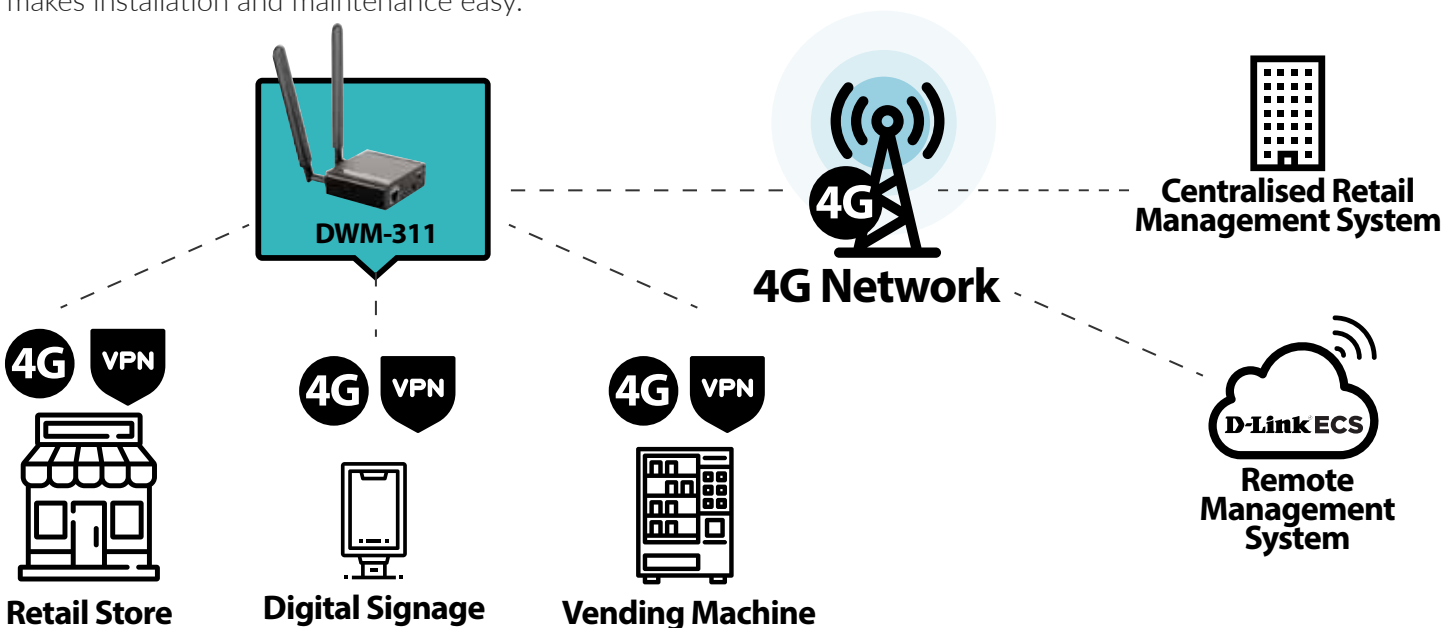
Top-tier mobile operator in North America

Challenges

Vending machines provide consumers an easy and quick way of accessing popular food, beverages and consumables at the convenient locations. To manage and maintain a network vending machine efficiently, remote sensors are installed. Cost-effective WAN infrastructure is required to connect the vending machines to the central management center.

Solutions

D-Link DWM-311 was chosen to provide secure VPN WAN connection over 4G/LTE to each vending machine. High-speed, good signal coverage, instant-on and paid-per-use 4G LTE network is the most suitable WAN infrastructure. With optional high-gain 4G antennas and built-in USB powered connector, DWM-311 makes installation and maintenance easy.



Case Studies : In-Vechical WiFi Hots

Provider of Infotainment for Public Transportation and Remote Retail Outlets

Service Provider

Top-tier mobile operator in Russia

Challenges

Lacking in accessing to the fixed broadband infrastructure, remote areas and public transportation rely on mobile network to connect to the public internet. To cater for IT needs of different businesses and moving vehicles, a powerful 4G LTE M2M router with versatile hardware and software features is required to handle the unexpected challenges.

Solutions

D-Link DWM-321 (4G LTE In-Vehicle Hotspot) was selected to deliver high-speed downlink/uplink up to 150Mbps/50Mbps. With optional design of dual LTE modems, DWM-321 can double the mobile WAN bandwidth to reach 300Mbps with advanced load-balance. Accommodating up to 4 SIM cards with different mobile operators, auto failover feature of DWM-321 offers zero downtime WAN connectivity. Built-in AC1200 provides easy WiFi access to the passengers to enjoy rich multimedia infotainment contents. Special industrial design, DWM-321 is able to handle the variation of DC power supply and high operation temperature in the moving vehicles.

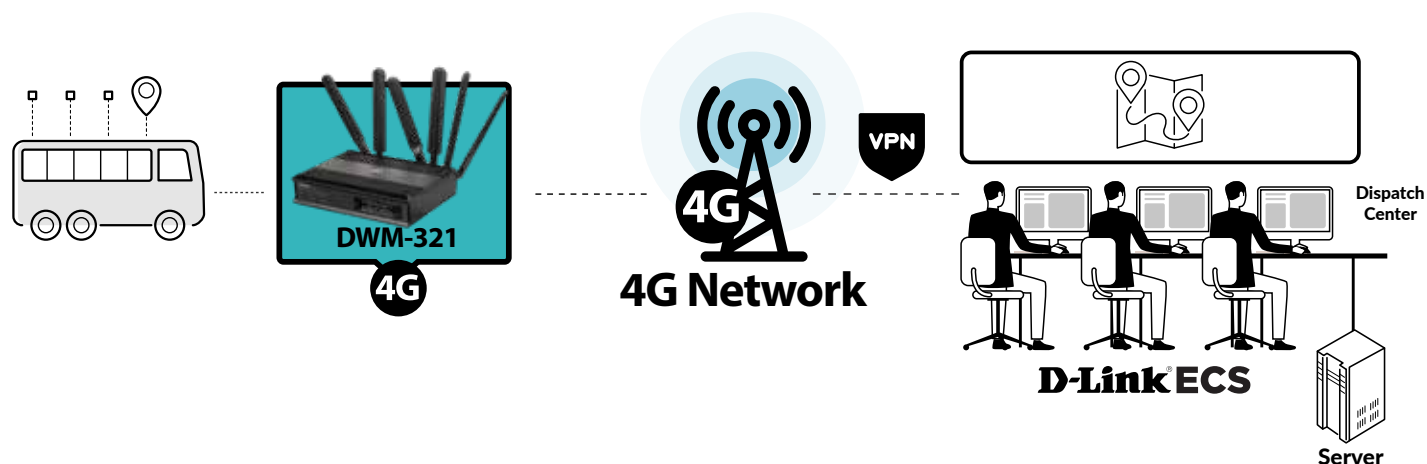


Project Size

3,000 – 4,000 units

DWM-321

(4G LTE In-Vehicle WiFi Hotspot)



Get Started with M2M Today



	One		Two		Two		Two		Two	
SIM Slots	One		Two		Two		Two		Two	
Connectivity	1 x Gigabit Ethernet LAN port		1 x 10/100Mbps Ethernet LAN port		1 x 10/100Mbps Ethernet LAN port		1 x Gigabit Ethernet LAN port		3 x Gigabit LAN ports	
			1 x 10/100Mbps Ethernet WAN/LAN port (Configurable)		1 x 10/100Mbps Ethernet WAN/LAN port (Configurable)		1 x Gigabit Ethernet WAN/LAN port (Configurable)		1 x Gigabit Ethernet WAN/LAN port (Configurable)	
4G LTE Speed	LTE Cat.4 Downlink 150Mbps		LTE Cat.4 Downlink 150Mbps		LTE Cat.4 Downlink 150Mbps		LTE Cat. 6 Downlink 300 Mbps		LTE Cat. 6 Downlink 300 Mbps	
Antennas	2 x detachable 3G/4G antennas		2 x detachable 3G/4G antennas;		2 x detachable 3G/4G antennas;		2 x detachable 3G/4G antennas		2 x detachable 3G/4G antennas	
			1 x detachable Wi-Fi antenna		1 x detachable Wi-Fi antenna		1 x GPS SMA (antenna connector)		2 x detachable WiFi antennas	
GPS (Global Navigation Satellite System GNSS)	N.A.		N.A.		N.A.		Yes		Yes	
VPN Features	OpenVPN		L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN		L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN		L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN		L2TP/OpenVPN/ PPTP/IPSEC/ GRE VPN	

* DWM-312W is not managed by D-Link Edge Cloud Solution (DECS)
5G speed varies

4G LTE Routers



DWR-920
4G LTE WiFi Router



DWR-921
4G LTE WiFi Router



DWR-953
4G LTE WiFi Router



DWR-961
4G LTE CAT 6 WiFi Router

SIM Slots	One	One	One	One
Connectivity	1 x Gigabit Ethernet LAN port 1 x Gigabit Ethernet WAN/LAN port (Configurable)	4 x 10/100Mbps Ethernet LAN port 1 x 10/100Mbps Ethernet WAN port	4 x Gigabit Ethernet LAN port 1 x Gigabit Ethernet WAN port	3 x Gigabit Ethernet LAN port 1 x Gigabit Ethernet WAN/LAN port (Configurable)
4G LTE Speed	LTE Cat 4 / Downlink 150Mbps	LTE Cat 4 / Downlink 150Mbps	LTE Cat 4 / Downlink 150Mbps	LTE Cat 6 / Downlink 300Mbps
Antennas	2 x detachable 3G/4G antennas	2 x detachable 3G/4G antennas	2 x detachable 3G/4G antennas	2 x detachable 3G/4G antennas
GPS (Global Navigation Satellite System GNSS)	N.A.	N.A.	N.A.	N.A.
VPN Features	N.A.	N.A.	N.A.	N.A.

Find out more about M2M Solution for Your Business, contact
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