# Land Deployable Gateway

Securely connecting you to the information you need

The Land Deployable Gateway (LDG) provides a single point of connection for application interoperability between Bowman and other national or coalition systems in the same security domain. The LDG provides secure access to a range of information released from Bowman via common interfaces and protocols, while also consuming services from other systems. The LDG encapsulates all the capability delivered to operations in Afghanistan from 2010 onwards, including the latest version, BCIP VM, plus the capability of the extant Multilateral Interoperability Program (MIP).

Typical LDG deployment

Land Deployable Gateway
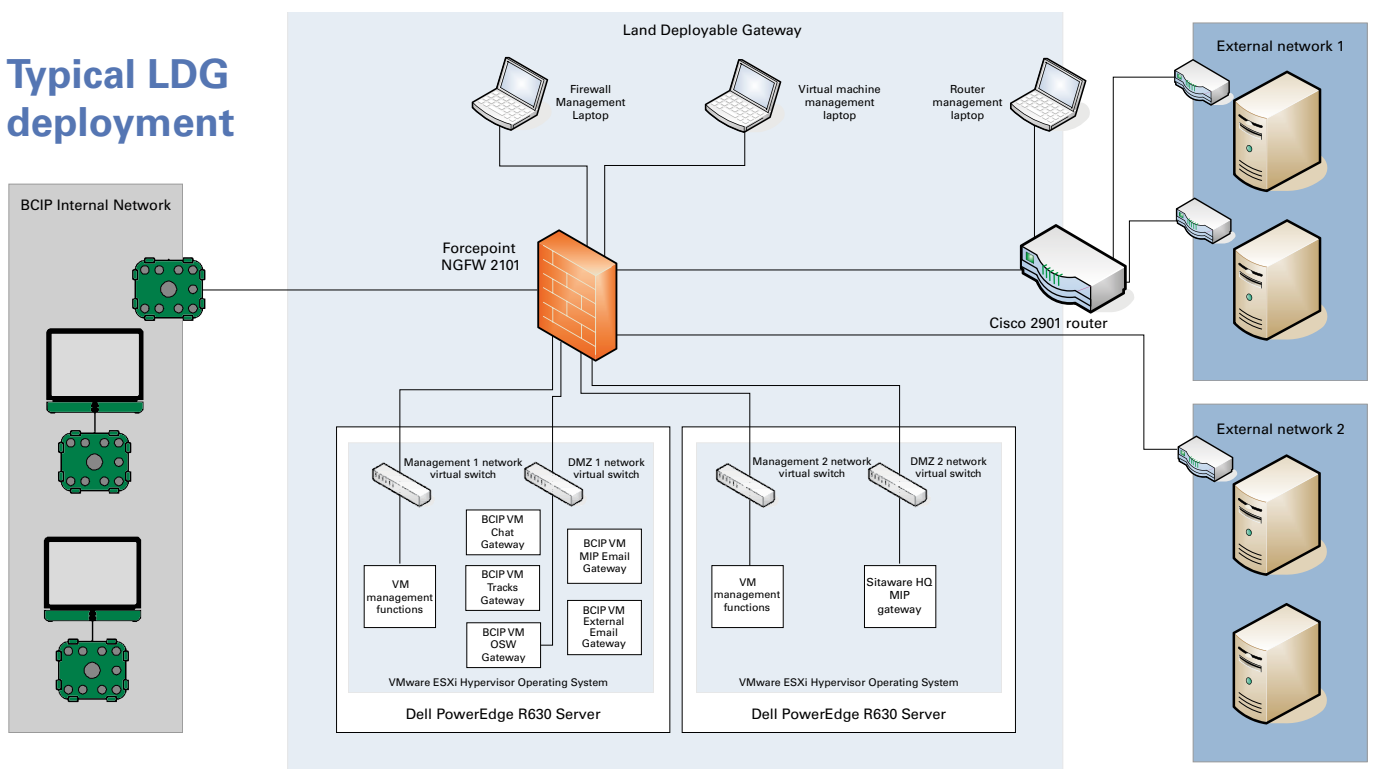
LDG incorporates an EAL4 COTS firewall providing tight control of access between system boundaries, as well as anti-virus checking on traffic passing between systems. It also includes a separate router to enable routing between networks that do not need the tight control of the firewall.

The gateway services hosted on the LDG all run in a virtualised environment, enabling the system to be mission configurable. Virtual machines (services) can be enabled or disabled dependant on the needs of the mission. Standard configurations for different scenarios can be rapidly deployed from a user defined catalogue.

The LDG is delivered in three separate rugged transit cases, with two portable cases for laptops and ancillaries. These three cases provide a greater degree of flexibility for the user to decide how much resilience is required for a mission. The portable cases store the hosting environment laptop, firewall management laptop and the router and management laptop.

For ease of integration with other C4I systems, LDG has been developed using COTS hardware providing standard Ethernet interfaces.

GENERAL DYNAMICS
Mission Systems

Technical detail

Features

Services

- Tracks – NFFI v1.3, CoT v2

- Email – ESMTP, MIP MEM, AdatP3 (multiple baselines)

- Chat – XMPP

- Web Map Services (WMS) proxy

- Symbology (kml, kmz, nvg1.4, ESRI shp, gpx, APP-6(A) & APP-6(D))

- MIP Block 2, 3 and 3.1

Application access

- Web browsing to the external system

Security

- Forcepoint NGFW 2101

Hardware specifications

Virtual machine hosting environment

- 2 x DELL R630 1U server

- 2 x Intel Xeon E5-2660 v3 2.6 Ghz

- 128Gb ECC RAM

- 4 x 1Tb RAID10 OPAL SED HDD storage

- VMWare VSphere ESXi Hypervisor 6.0

Laptops

- 3 x Getac S400

- Windows 8.1 Enterprise, Vsphere Client, Sidewinder Firewall Console, PuTTy

UPS

- Reillo SDH2200

Router

- Cisco 2901

Physical specifications

Case A – 4U gateway host environment

- Weight – 50Kg

- 550W x 450H x 800D mm

Case B – 4U gateway firewall and router

- Weight – 50Kg

- 550W x 450H x 800D mm

Case C – 2U UPS

- Weight – 50Kg

- 550W x 250H x 800D mm

Additional case for laptops and ancillaries

Power

- Input using UPS – 230V AC

- Input direct to Case A and Case B – 230V AC

- Power consumption maximum/typical – 1700W/700W