



## APM System Modules:

SmartOps, SchedulePlanner, CrewLogic, CrewConnect:

**Airline size: 40 AC / 2000 Crew**

### Please Note:

1. These specifications are guidelines only based on the implementation of the stated APM modules/databases. The actual specification will be subject to change with detailed discussions with the customer to identify the APM modules required and the size/operation of customer's business.
2. APM provide a production database backup service to ensure a backup of the live system is taken at set frequency, it is then the customers responsibility to ensure the backups are stored away from the production environment.
3. Where Web Apps are used to provide crew with access to the APM system, the customer must ensure that a safe connection is provided from the APM servers to the internet by using secure data transfer protocols such as https.
4. All hard drives must be Solid State Disks (SSD) for optimal performance.
5. All Network Interface Connections (NIC) must be Gigabit Ethernet and use TCP/IP standard IPv4)
6. **APM will liaise with the customer to ensure their APM system and IT configuration is optimal.**

## Production Environment

Server	Client PC/Laptop	Mandatory				
		1	2	3	4	5
<b>Purpose</b>	Access to network/APM system	Databases: Prod DB, SyncDB,	Internal Services	Apm Crew Connect	Partners DB MongoDB	Integration Services/Web Apps
<b>CPU</b>	INTEL 4 core CPU (>2020)	INTEL 8 core CPU (>2020)	INTEL 4 core CPU (>2020)	INTEL 8 core CPU (>2020)	INTEL 8 core CPU (>2020)	INTEL 4 core CPU (>2020)
<b>RAM</b>	16GB	16GB	16GB	16GB	16GB	16GB
<b>Storage</b>	Disk C: 200GB	Disk C: 100GB Disk E: 200 GB	Disk C: 100GB Disk E: 100 GB	Disk C: 100GB Disk E: 40GB	Disk C: 100GB Disk E: 200GB	Disk C: 100GB Disk E: 100GB
<b>OS</b>	Supported Windows O/S	Windows Server 2016 / 2019	Windows Server 2016 / 2019	Windows Server 2016 / 2019	Windows Server 2016 / 2019	Windows Server 2016 / 2019
<b>Special Requirements</b>	Screen: 15" with 1600x900 or higher resolution. Larger external monitor recommended.					Interface to internet - will require HTTPS certificate.

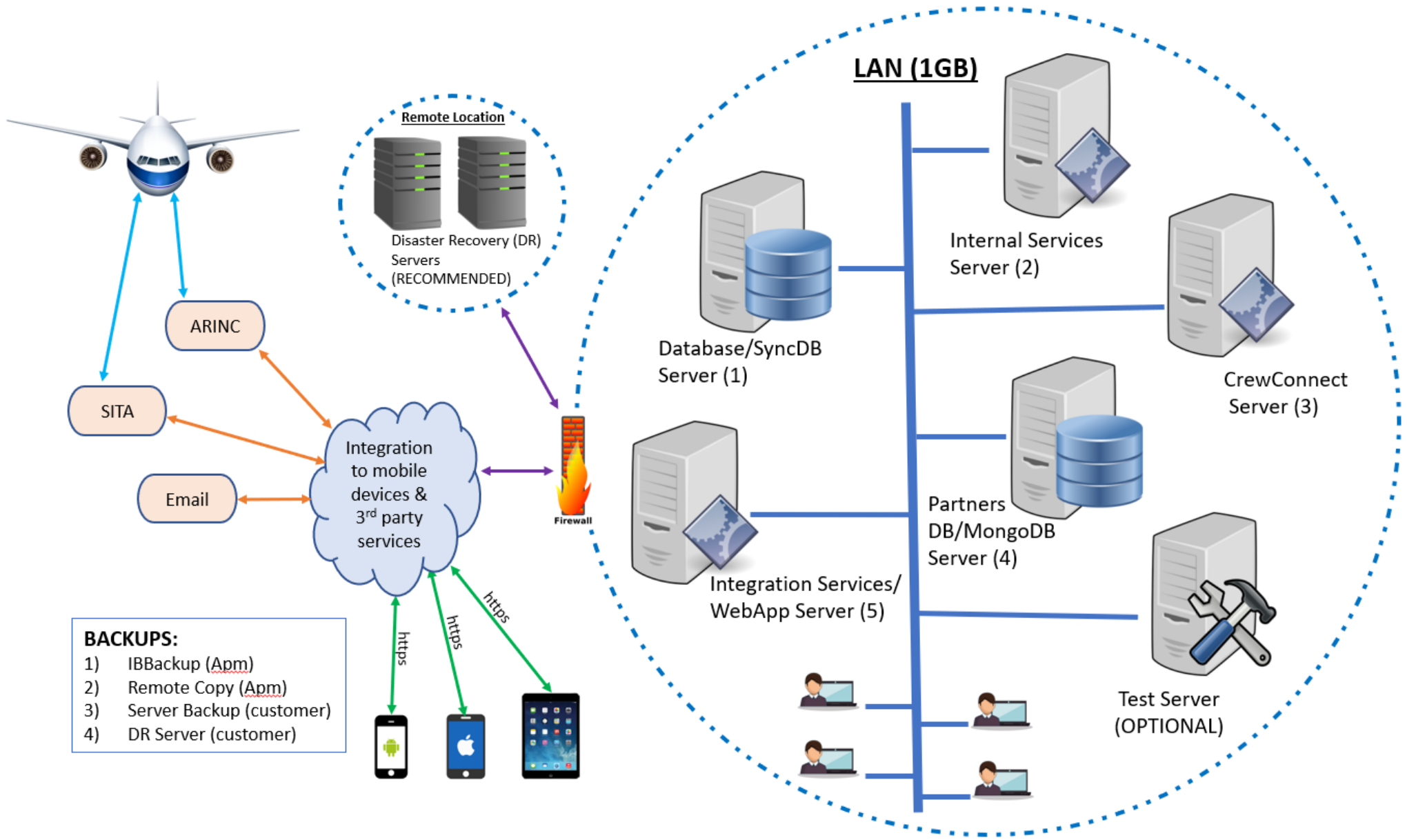


### Test and Disaster Recovery (DR) Environments

**Please Note:**

1. The Test server:
  - a. Test server is optional and depends on the customer’s needs.
  - b. The performance of the Test server will be well below the performance of the Production environment.
  
2. Disaster Recover Environment:
  - a. The Disaster Recovery (DR) environment is recommended to ensure the availability of the APM system in case of unforeseen events causing local datacentre failures.
  - b. The exact setup/ specification will be dependent on the customers DR solution and which APM modules the customer needs to have available in the DR environment. Further detailed discussions will be required with customer.
  - c. The server specifications are based on DR environment being hosted by the customer.
  - d. The DR environment is based on an Active/passive scenario (whereby a manual failure will be needed).
  - e. These are minimum server requirements and will deliver degraded system performance for a limited number of users.
  - f. The APM system functionality available in a DR situation will be limited to critical functions only.
  - g. The customer may choose to have a higher specification DR environment to get better performance.

Server	Client PC/Laptop	Optional (TEST)	Recommended (Disaster Recovery)	
		T1	DR1	DR2
Purpose	Access to network/APM system	Test Environment	Disaster Recovery Environment <i>(Degraded Performance)</i>	
CPU	INTEL 4 core CPU (>2020)	INTEL 8 core CPU (>2020)	INTEL 16 core CPU (>2020)	INTEL 8 core CPU (>2020)
RAM	16GB	32GB	32GB	32GB
Storage	Disk C: 200GB	Disk C: 100GB Disk E: 400 GB	Disk C: 100GB Disk E: 500 GB	Disk C: 100GB Disk E: 500GB
OS	Supported Windows O/S	Windows Server 2016 / 2019	Windows Server 2016 / 2019	Windows Server 2016 / 2019
Special Requirements	Screen: 15” with 1600x900 or higher resolution. Larger external monitor recommended.			Interface to internet - will require HTTPS certificate.



- BACKUPS:**
- 1) IBBBackup (Apm)
  - 2) Remote Copy (Apm)
  - 3) Server Backup (customer)
  - 4) DR Server (customer)