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IBL WIS 2.0

SOFF Peer Advisors presentation

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The Leading Weather
Software Solution Provider

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About IBL Software Engineering

Introducing IBL Software Engineering

IBL Software Engineering is a specialist in meteorological IT solutions and works exclusively in this field.

IBL delivers end to end projects and comprehensive innovative solutions, continuous systems support & upgrades, and responsibly building relationships and partnerships that last decades.

Ernst & Young
Entrepreneur Of The Year

Recognized Expertise

IBL Software Engineering is building meteo systems including message switching systems for 40+ years, servicing major meteorological organizations all around the world.

IBL experts participate in WMO Expert Teams and Task Teams more than any other HMEI member, and are recognized by WMO CBS for their expertise.

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Overview

IBL Moving Weather

Reliable weather data exchange system for WIS 2 and beyond

Metadata search and subscribe

Publishing of data to WIS2

Metadata Editor

www.iblsoft.com/products/wis-2

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Key Benefits of Moving Weather

Field-proven data exchange system, used by many National Meteorological Services, with highly praised support & upgrade service.

Contains powerful robust functionality beyond WIS 2.0, data collection, message and file dissemination, cloud delivery capabilities and Publish/Subscribe, MET-SWIM aviation, and data conversion.

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Solution Options

Architectures

- Full On-premise system
- Hybrid solution with Cloud services

Licensing

- Permanent license with maintenance contract
- Subscription service

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WIS 2 On-Premise system

On-premise: Scalability

Different Hardware deployment options:

- Single server
- Virtual machine
- High Availability cluster
- Two clusters (one in LAN one in DMZ)
- ... (the sky's the limit)

Requires Linux and network management skills

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On-premise: Software Components

1. **IBL Moving Weather** (lite) - in LAN
   The core system
2. **MQTT broker** - preferably in DMZ
   ActiveMQ, Mosquitto (including HA)
3. **Web Server** - preferably in DMZ
   Dedicated - Nginx or Apache
   Integrated - with an existing server

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On-premise: capabilities

File transfers

- SFTP/SCP, HTTP/HTTPS, FTP/FTPS, MQTT (base package)
- S3, Azure blob, SNS/SQS, AMQP 1.0 (optional)
- Python API to plug custom protocols (optional)

Data/file preprocessing on input and output

- Python API, C++ API, CLI (base package)
- Customization by IBL (optional)

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On-premise: data

- TAC → BUFR/IWXXM and BUFR/IWXXM → TAC conversion (base package)
- BUFR creation from external SQL database (optional) PostgreSQL, MySQL, SQLite, ODBC, Oracle, IBM DB2, ...
- WIS 2.0 Metadata management (base package)
- Search and subscribe to WIS 2.0 Global datasets

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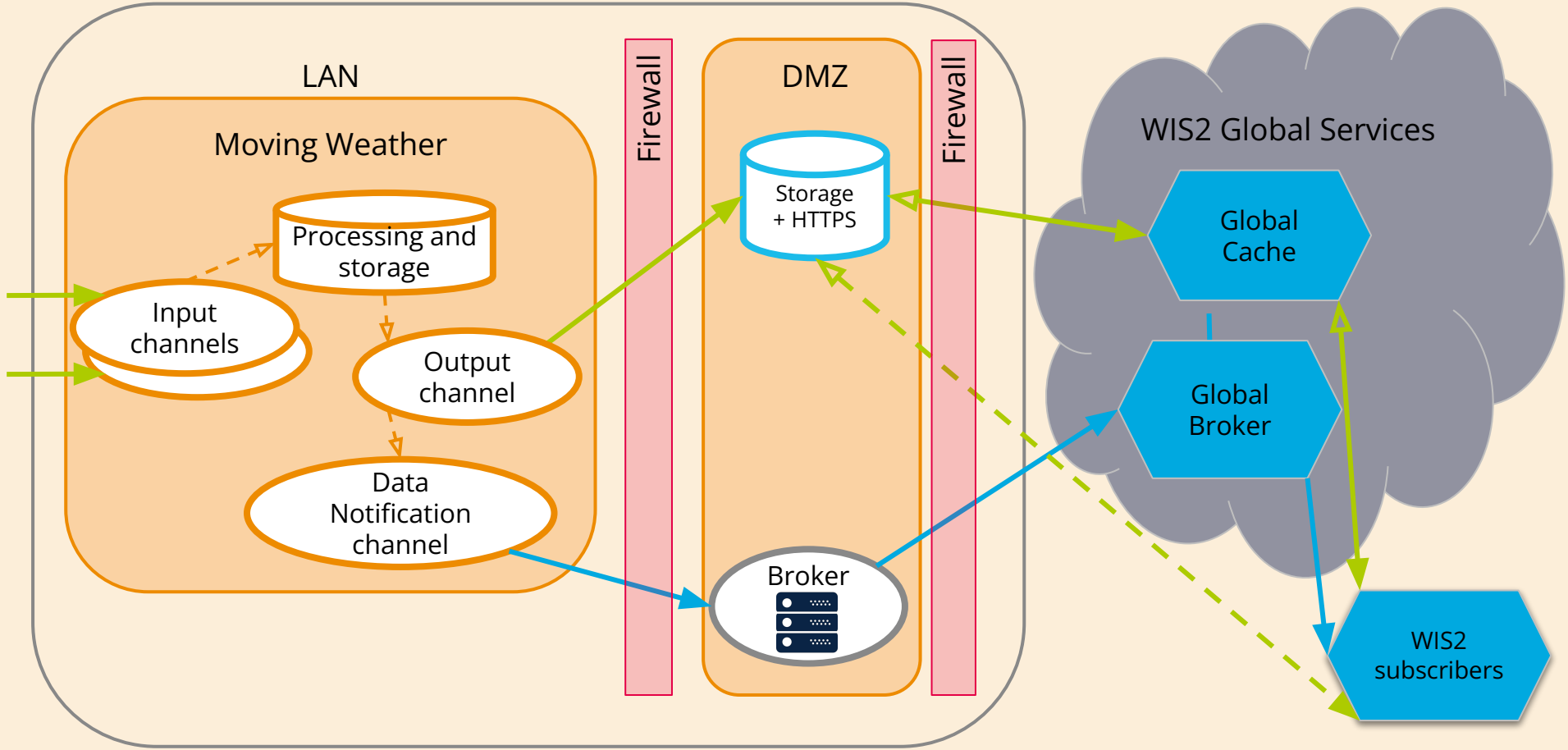
On-premise solution architecture



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WIS 2 Hybrid system

Hybrid solution

- On-premise installation of IBL Moving Weather (lite) for data collection and processing
  - Same functionality as mentioned earlier
  - Preconfigured channels to forward data to shared services
  - No need for a static IP, DNS, SSL/TLS certificates
- Managed SaaS services by IBL in the Cloud for WIS 2.0, shared by multiple National Meteorological Services (NMS)
  - MQTT broker
  - Web accessible storage

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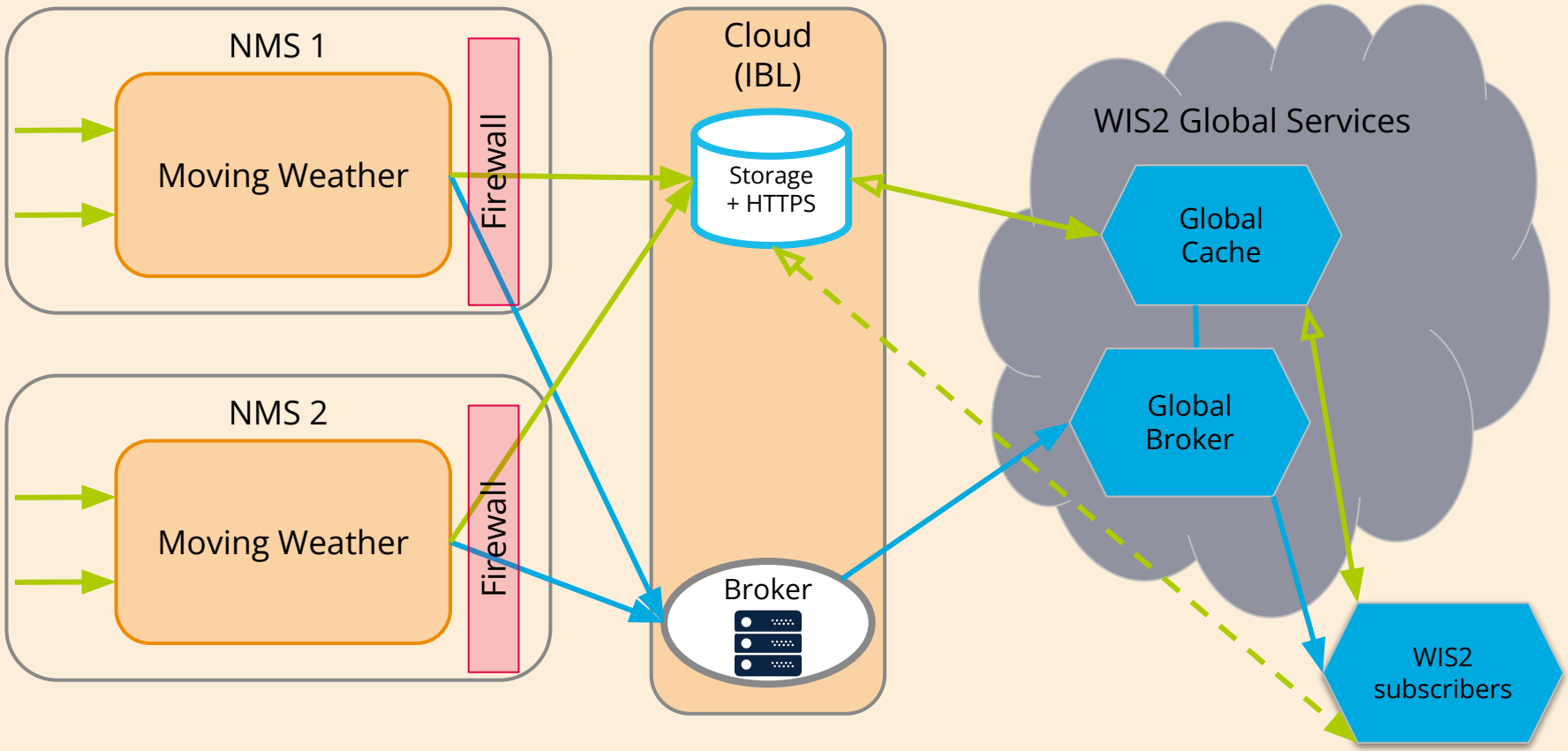
Hybrid solution architecture



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Licensing Options

Licensing Options

Permanent

- Permanent License with Support & Maintenance contract
- Smaller ongoing annual fee
- Includes support and upgrades

Subscription

- Lower initial investment cost
- Support and upgrades in the annual fee

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Thank you.

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