



**Simplir Inc. Turnkey ISP Package A**

**Basic High Reliability NOC and Remote Site  
Application Guide**

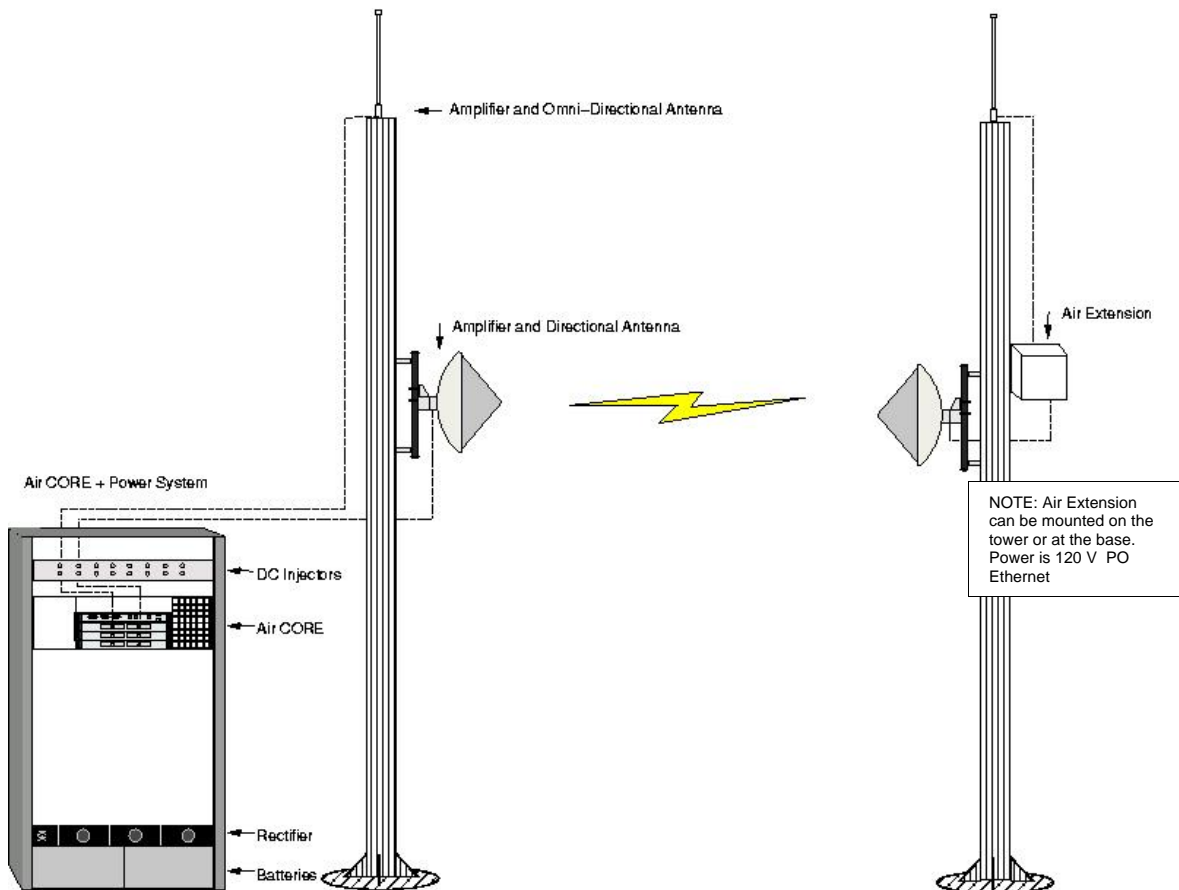
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# Simplir Inc. Package A

## Basic High Reliability NOC and Remote Site

### Overview

A basic NOC with optional T1 or Satellite backhaul including a local Wi-Fi wireless cell. The NOC then links a remote Wi-Fi cell with RF back haul



### Description

This package provides a cost-effective yet highly reliable and secure turnkey solution for start up WISPs.

At the NOC the rectifier and batteries create a telco type DC UPS solution. The rectifiers filter and convert 110 v or 220v AC grid power into -48v DC power. This power is then stored in the high capacity battery bank and powers the DC version AirCORE and DC injector shelf.

The AirCORE blade environment is the “Swiss Army Knife” of ISP connectivity. AirCORE replaces up to 6 wireless access points and back haul radios, a multi-interface router, a firewall, a QOS bandwidth shaper, customer signal strength monitor, database, packet sniffer, and a number of ethernet cables and possibly switches. AirCORE's brain is the Firewall Router Blade (FRB) security appliance blade. FRB routes and controls network traffic on a per customer basis between any network adapter blade or the two 10/100 ethernet interfaces that come standard with FRB. FRB serves it's own encrypted graphical menu interface for remote management. At least one network interface needs to be your upstream Internet backbone or “WAN interface”. If your WAN connectivity is T1 or E1 then you simply insert our T1-E1 blade into the AirCORE. For satellite connectivity you simply plug the satellite “modem” into one of the ethernet interfaces that comes standard with AirCORE.

The second ethernet interface can then be used for connectivity at the NOC. This could be a “DMZ” for servers or just the local workstations at the NOC.

This package assumes the NOC is a good wireless site. A single wireless radio and an omni directional antenna gives up to 11 megs data rate or 4 megs of real wireless throughput to customers.

Simplir's Wireless Radio Blade (WRB) has two wireless radios per blade.

In between the WRB and the antenna is the DC injector, coaxial cable, and outdoor amplifier. The DC injector feeds power through the coax cable, along with the radio signal to the amplifier. No power cables to the tower top are necessary. This method insures full power output at the antenna where it's the most effective while using low cost coax.

In this package, the second radio is used with a directional dish antenna to create a wireless link from the NOC to the remote tower site. This link can operate at almost any frequency from 2.4 Ghz to 5.8 Ghz and at power levels up to 200 watts output.

At the remote site another directional dish receives the signal from the NOC. This dish is connected to an Air Extension wireless router. Air Extension provides all of the functionality of FRB in a compact and economical form factor. Air Extension has two built in wireless interfaces and two built in ethernet interfaces with full firewalling and routing between them.

The second wireless interface provides point to multi-point connectivity to customers through an omni-directional antenna.

**This configuration utilizes the following Simplir™ components.**

<b>Description</b>	<b>Part Number</b>	<b>Qu.</b>	<b>Price</b>
AirCORE-with FRB and 1 Wireless Radio blade(2 radios)	BACSC1T	1	\$8,060.00
Wireless Antenna Package Backhaul	AOD28	2	\$1,235.00
Wireless Antenna Package Omn-idirectional	A0010	2	\$910.00
Air Extension, outdoor version	WRTRAE	1	\$958.00
1u Rectifier with	PSREC1	1	\$1,690.00
DC Distribution Panel for above	PSREC1DP	1	\$110.00
Battery Module	PSBM	2	\$416.00
DC Injector Shelf	AODIS	1	\$295.00
25U Indoor Rack	EIR25	1	\$1,820.00
Cable and Connectors based on tower requirements			
<b>Package Total</b>			<b>\$18,055.00</b>

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 1.800.838.3224

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